

Who Is Going to Save the Climate?

Framing Responsibility for Climate Change in the U.S. Media

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Tiivistelmä – Referat – Abstract <p>This thesis sets out to investigate what frames are used in the U.S. media to discuss responsibility for climate change. Particularly, the study seeks to identify what frames are used to discuss action for climate change mitigation. The normative framework for analyzing responsibility is established by the social connection model by Iris Marion Young, which presents a forward-looking approach for addressing responsibility for issues of structural injustice. The theoretical framework of this thesis derives from existing literature on climate change, the media, and media framing.</p> <p>The study was conducted using a qualitative method of frame analysis. Data for the study was collected from the digital contents of three popular news media outlets in the United States: CNN, Fox News Channel, and <i>The New York Times</i>. The data consists of news articles that were published online in December 2019.</p> <p>The results of the study indicate that responsibility for climate change mitigation is rarely approached directly in the media. Rather, it is implied through discussions about what actions should be taken. The study identifies four main frames of responsibility. The first frame emphasizes the conflict between the younger and older generations and deems that collective efforts are required to address the situation. The second frame accentuates the political division over the issue of climate change by casting blame upon Asian nations while downplaying the respective responsibility of the United States. Similarly, the efforts of the Democratic party are ridiculed. The third frame emphasizes consumer action through practical efforts but does not promote buying less as a possible solution. Lastly, the study identifies a frame, in which corporate responsibility is approached in two ways: to hold highly polluting industries accountable and to promote green business as a solution.</p> <p>The study finds that the framing employed by Fox News Channel emphasizes the economic disadvantages of climate change mitigation and sees it as an issue of causal responsibility for Asian nations. On the other hand, the findings of the study suggest that the media coverage of the youth protests against climate change often yield notions of collective responsibility and frame the issue of responsibility in a more contextualized setting. The findings of the study support existing research of how media frames the issue of climate change and how polarization affects the framing. Through the application of the social connection model, the findings of this study contribute to the literature of news framing of climate change by demonstrating how the issue of responsibility is framed.</p>			
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Tiivistelmä – Referat – Abstract <p>Tämä tutkielma pyrkii kartoittamaan, mitä kehyksiä Yhdysvaltojen mediassa käytetään, kun keskustellaan ilmastonmuutokseen liittyvästä vastuusta. Tämä tutkielma pyrkii erityisesti tunnistamaan, mitä kehyksiä käytetään ilmastonmuutoksen lieventämiseen liittyvässä vastuukeskustelussa. Tutkimuksen normatiivinen viitekehys vastuun tarkasteluun tulee Iris Marion Youngin kehittämästä sosiaalinen yhteys -mallista (<i>social connection model</i>), jonka avulla voidaan tarkastella vastuuta eteenpäin suuntautuvasti. Teoreettinen viitekehys tälle tutkimukselle pohjautuu aikaisempaan tutkimukseen ilmastonmuutokseen, mediaan ja median kehystykseen liittyen.</p> <p>Tutkimus suoritettiin laadullisena tutkimuksena. Metodina käytettiin kehysanalyysia. Tutkimusmateriaali kerättiin kolmen suosituksen yhdysvaltalaisen uutismedian verkkomateriaaleista. Nämä kolme julkaisua olivat CNN, Fox News Channel ja <i>The New York Times</i>. Tutkimusmateriaali koostui uutisartikkeleista, jotka oli julkaistu joulukuussa 2019.</p> <p>Tutkimuksen tulokset osoittavat, että ilmastonmuutokseen liittyvästä vastuusta keskustellaan harvoin suorasanaisesti Yhdysvaltojen mediassa. Sen sijaan vastuusta keskustellaan epäsuorasti esittämällä, mitä tekoja sen torjumiseksi tulisi tehdä. Tutkimus nostaa esiin neljä kehystä, joiden kautta vastuuta käsitellään. Ensimmäinen kehys korostaa nuorempien ja vanhempien ikäpolvien välistä kuilua ja esittää, että vastuu torjuvista teoista on yhteinen. Toinen kehys korostaa puolueiden välisiä eroja ilmastonmuutokseen liittyvissä kysymyksissä ja asettaa vastuuta aasialaisille valtioille. Samalla tässä kehyksessä korostuu Yhdysvaltojen vastuun vältteleminen ja demokraattipuolueen ilmastonmuutoksen vastaisten toimenpiteiden vähättely. Kolmas kehys korostaa kuluttajien toimia ilmastonmuutoksen lieventämiseksi. Tämä kehys ei kuitenkaan osoita korostavan ostamisen vähentämistä mahdollisena vastauksena ilmastonmuutoksen lieventämiseen. Neljäs kehys korostaa yritysten vastuuta kahdella tavalla. Kehyksessä painotetaan paljon saastuttavien yritysten vastuuta ja toisaalta esitetään vihreän liiketoiminnan positiivisia mahdollisuuksia vaikuttaa ilmastonmuutokseen.</p> <p>Tutkimustulokset osoittavat, että Fox New Channelin käyttämä kehys korostaa ilmastonmuutoksen lieventämisen taloudellisia haittapuolia ja esittää, että sen lieventäminen on kausaalisesti aasialaisten valtioiden vastuulla. Toisaalta tutkimustulokset ilmaisevat, että vastuu nähdään kollektiivisena ja tulevaisuuteen suuntautuneena silloin, kun mediakeskustelu keskittyy nuorison järjestämiin protesteihin. Tutkimustulokset tukevat aiempaa tutkimusta median kehystämisestä ja polarisaatiosta ilmastonmuutokseen liittyen. Lisäksi tutkimustulokset edistävät aiempaa tutkimusta median kehystämisestä tuomalla esiin, miten ilmastonmuutokseen liittyvää vastuuta kehystetään mediassa.</p>			
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1 INTRODUCTION

1.1 Call for Climate Change Responsibility

In October 2018, the Intergovernmental Panel on Climate Change (IPCC) released its special report on global warming, providing dire prospects of what will happen if the course of the world is not changed. From the IPCC report emerged a popular catchphrase of “12 years,” insisting that humankind has only 12 years to drastically curb greenhouse gas emissions before something irreversible will take place. This message resonated strongly with the public, as exhibited by large global demonstrations that have since emerged, particularly among the youth. For instance, on March 15, 2019, 1.6 million students gathered on the streets in over 100 countries to protest against inaction for climate change, asking “if not now, when?”. Alongside the youth strikes for climate, other climate change movements such as Extinction Rebellion in the United Kingdom and Sunrise Movement in the United States have gathered attention and support. In spite of having different approaches and origins, these movements ultimately unite under a common message: to demand stronger action against climate change.

While the demand for leadership and action against climate change has soared across the world, small advances have been made globally and nationally since the release of the 2018 IPCC report. In the United States, the Democratic party proposed a package of legislation called the Green New Deal in February 2019, with the aim of tackling climate change with drastic restrictions on greenhouse gas emissions (H. Res. 109, 2019). Despite the public support, particularly from the Sunrise Movement and the youth activists, the deal was rejected in the Senate soon after its introduction. On a global level, several climate-change-related conferences and summits have taken place, but regardless of the global pressure, concrete measures have been scarce. In November 2019, the United Nations Environment Programme (UNEP) released the Emissions Gap Report, which concluded that current political commitments were insufficient and that stronger measures to cut greenhouse gas emissions were required.

Across the world, newspaper coverage of climate change increased by 73% in 2019, when compared to coverage in 2018 (Boykoff et al., 2020). In the United States, television coverage of climate change increased by a whopping 138% and print coverage witnessed an increase of 46% (Boykoff et al., 2020). However, the respective increase in coverage was rather lopsided.

Researchers at the Media and Climate Change Observatory (MeCCO) note that a majority of climate-change-related news were published by *The New York Times* in print and by CNN on television (Boykoff et al., 2020). Moreover, in recent years, media coverage of climate-change-related issues has not been particularly diverse. Researchers at MeCCO remark that since 2017 increased media attention has been given to President Donald Trump on issues concerning climate change (Boykoff et al., 2020). Moreover, this tendency of “Trump Dump” has resulted in a lack of coverage on actual issues and stories of climate change that would have been otherwise told by the news (Boykoff et al., 2020).

While several factors have contributed to the increased news coverage of climate change across the world, heightened coverage was notable especially during the peak protesting months (Boykoff et al., 2020). Arguably, the youth strikes have altered the way in which the issue of climate change is framed in the news. The main messages of the climate strikes have been the youth’s concern for the future and perceived lack of action by older generations and political leaders. In 2019, these messages gathered momentum and punctuated the media coverage of climate change (Boykoff et al., 2020.)

Continuous media coverage of climate change as an environmental, economic, and social issue is crucial, as the media works as the main provider of scientific information for the majority of the public (Nelkin, 1995). Furthermore, news framing, or the selection of certain aspects or an angle of a story, affects public engagement and perception of complex issues such as climate change (Nisbet, 2009). In order for frames to work effectively, they need to match the audience’s cultural, ideological, and personal preconceptions (Nisbet, 2009). Without meaningful connections, frames are unlikely to hold significance and likely to be rejected by the audience (Nisbet, 2009).

A growing body of research has investigated how the media frames the issue of climate change and what the effects of framing are. Brereton and Robbins (2016) distinguish three main categories of studies concerning media coverage of climate change. The first category is formed by studies that evaluate the levels of media attention (Brereton & Robbins, 2016). The second category include studies that analyze the content of media coverage (Brereton & Robbins, 2016). The last category includes studies that “seek to place the media’s coverage in a wider arena of ‘press-politics’ or media-policy in which various claims-makers seek to define and dominate the debate over climate change by imposing their frames on the media” (Brereton & Robbins, 2016, p. 2).

This thesis falls into the last category presented by Brereton and Robbins by aiming to identify common frames of responsibility in the climate change debate in the U.S. media. Particularly, in this thesis, I am interested in detecting what frames are used to discuss responsibility and to incite action for climate change mitigation. In the context of climate change, mitigation refers to such efforts that aim to reduce or stop greenhouse gas emissions (UNEP, n.d.). This interest in responsibility stems from climate change debates over the past decade, in which the responsibility of individuals as consumers has been frequently emphasized. This has meant seemingly amplified media attention to what efforts individuals can make toward climate change mitigation through their everyday decisions regarding consumption, modes of transportation, and recycling. In stark contrast, it appears that the practical efforts of governments and decision-makers, or the lack thereof, have not gained the same media attention until recently, following the youth protests for climate change.

Ultimately, this unbalanced framing of responsibility can result in people feeling that it is their personal responsibility to solve climate change. It holds true, however, that climate change is a complex issue and that no individual, state, or nation is solely responsible for mitigating it. Moreover, the efforts of an individual to curb their personal carbon footprint will not suffice. Collective efforts are required to achieve change.

This juxtaposition of responsibility is at the core of this thesis. Although extensive research concerning climate change has been carried out by framing studies, news framing of responsibility for climate change has not been widely studied. Acknowledging this gap in existing research, this thesis seeks to unravel how responsibility for climate change action is framed in the U.S. media. To identify common frames of responsibility in the media, this thesis employs a qualitative method of frame analysis. By doing so, the objective of this thesis is to contribute to framing studies concerning climate change. Furthermore, this thesis seeks to have social and practical relevance by contributing to the cause of climate justice. The movement of climate justice sees climate change as a human rights issue and strives to create collective action against climate change in order to protect the most vulnerable communities from the consequences of global warming (UN, 2019). The aim of this study will be further discussed in the next section.

1.2 Aim of the Research

In this thesis, my aim is to study how responsibility for climate change is framed in the media. Particularly, the purpose of this thesis is to analyze how the American media frames the issue of responsibility and how it approaches taking action toward climate change mitigation. Following Brereton and Robbins' (2016) categorization, this thesis seeks to unravel how the issue of responsibility is defined and who dominates the debate concerning responsibility for climate change in the media. The theoretical background for this thesis emerges from several fields of research. Notably, the thesis combines literature from media studies, news framing research, and contemporary political theory to establish a framework through which the news framing of responsibility is studied.

Furthermore, in this thesis, I approach the issue of responsibility following a conceptualization by American political theorist Iris Marion Young. Young's (2011) *social connection model* provides a normative framework for analyzing responsibility for structural injustice, of which climate change can be seen as an example. Young's model does not seek to pass guilt but, instead, is a forward-looking model that pursues the dismantling of unjust structures. Moreover, the social connection model presents a collective approach to climate change mitigation, rather than insisting on individual responsibility. As such, it can help pave the way for the climate justice movement. While Young's model has been previously used in theoretical literature concerning climate justice (e.g., Larrère, 2018; Martinsen & Seibt, 2013; Eckersley, 2016), the model has not been investigated through qualitative research.

This thesis seeks to answer the following main research question:

Q: How is responsibility for taking action on climate change framed in the American media?

To further approach the issue of responsibility, this thesis sets out to answer to these two sub-questions:

Sub-question 1: What solutions and efforts are offered in the media to fight climate change?

Sub-question 2: What actors are called for/to action?

While the main purposes of this thesis are to contribute to framing studies and to have social and practical relevance, the aim of this thesis is further justified by the general goal of promoting social science research on climate change. A recent study by Overland and Sovacool (2020) found that in terms of climate change research, social sciences are highly underfunded: in fact, natural and technical sciences have received 770% more funding than social sciences on climate-change-related research between 1990 and 2018. The share of funding received by social sciences is only 0.12% (Overland & Sovacool, 2020). Overland and Sovacool (2020) note that this imbalance of funding is harmful, since social sciences can provide tools and solutions for how to best implement and motivate climate change mitigation. Furthermore, they argue that climate change ought to be framed as “a global social challenge that cuts across disciplines” (Overland & Sovacool, 2020, p. 5) in order to help answer the key questions of climate change mitigation.

1.3 Scope of the Study

In this thesis, I have chosen to study specifically the U.S. media due to my personal interests in it. During my undergraduate studies in the United States, I conducted a case study, in which I analyzed the media representation of Sergeant Bowe Bergdahl after his release from Taliban captivity in 2014. I was intrigued by the sensationalism and controversy that was apparent in the media coverage of his return. Moreover, what stood out to me was the complete disregard for factual news especially by some more conservative media outlets. Overall, the case demonstrated the sensationalist and divisive nature of the U.S. media just a few years before *fake news* officially became a prominent global issue.

My interests in studying the U.S. media in the context of climate change stem from my background in the United States and from the seemingly persistent polarization over the existence and importance of climate change. In the United States, climate change remains a highly politically polarized issue. According to a survey by Pew Research Center (2020), only 21 % of Republicans and Republican-leaning independents consider climate change a top priority, whereas 78% of Democrats and Democratic-leaning independents see it as a major policy priority. Furthermore, a survey by Yale Program on Climate Change Communication found that global warming is currently the most polarizing issue in the United States, thus outpacing more traditionally divisive issues such as abortion (Leiserowitz et al., 2019).

The roots of a long-standing partisan division over the issue of climate change are arguably complex. A University of Michigan study recently found that news coverage of climate change has become increasingly politicized and polarized (Chinn, Hart & Soroka, 2020). The politicization has led to increased mentions of political actors and decreased accounts of scientists in the coverage of climate change (Chinn, Hart & Soroka, 2020). This politicization has likely led to increased polarization over the issue of climate change, through a process in which the public opinion is influenced by the positions of political leaders (Chinn, Hart & Soroka, 2020). Similarly, Bolsen and Shapiro (2018) note that the media plays an active role in contributing to the polarization through the selection of news frames. They argue, however, that the media ought not to be solely blamed for the polarization, as the selection of news framing is often a product of influencing by different interest groups and political leaders (Bolsen & Shapiro, 2018). Considering the polarized nature of the debate over climate change, I believe that the U.S. media provides an interesting case to study.

In this thesis, I have chosen to analyze the climate-change-related content of three major news outlets in the United States: *The New York Times*, CNN, and Fox News. In terms of possible ideological bias, Fox News is generally considered more right-leaning, whereas CNN is considered left-leaning. *The New York Times* is generally considered more neutral in terms of bias. These selected news sources have roots in legacy media (newspaper and cable television) but have attained digital presence over the past two decades. In this study, I analyze the digital news content available on each source's website. However, this study does not include visual analysis. Instead, only written material (articles, opinion pieces and transcripts of cable news segments) is analyzed.

The dataset consists of 149 individual articles or pieces of writing collected from the three news sources. The collected data was published online in December 2019. While the data is thus fairly limited in terms of the timeframe, it arguably yields more up-to-date analysis of the climate change debate.

1.4 Structure of the Thesis

This thesis is organized in the following way. Chapter 2 consists of the literature review and provides the main theoretical frameworks for the study. Chapter 2 is divided into three parts: firstly, I discuss anthropogenic climate change and climate change policy in the United States over the past twenty years. In the second part, I examine the role of the media and media framing of climate change. In the last part of the chapter, I discuss the concept of responsibility and provide the main normative framework for the thesis, which is later implemented when analyzing how responsibility

for climate change is framed. More specifically, I present Young's (2011) social connection model as the main normative theory of responsibility.

Chapter 3 consists of the methodology for the study. I begin the chapter introducing frame analysis as the method of the study, after which I discuss the data collection process. I present the sources of the data and provide the tools, with which the analysis was conducted. Furthermore, I explain the process for the data analysis. The chapter concludes with my remarks on the reliability and validity of the study.

In Chapter 4, I present the results of my analysis. The analysis resulted in identifying four frames, which I examine one by one. I conclude the chapter with a summary of the four frames and provide a table of the key aspects of the frames.

Chapter 5 consists of the discussion of the main findings of the study. I provide a contextual discussion of the important findings of the study and relate them to the literature presented in the second chapter of this thesis. As such, chapter 5 provides answers to the research questions posed in the introduction of this thesis.

Chapter 6 is the conclusionary chapter of this thesis. In chapter 6, I discuss the significance of the study, acknowledge the weaknesses and limitations of the study, and, finally, provide suggestions for further research that arise from this study.

2 CLIMATE CHANGE, MEDIA, AND RESPONSIBILITY

This chapter of the thesis covers the theoretical and normative frameworks relative to the study. This chapter is divided into three main parts. The first part begins with an introduction to anthropogenic climate change, after which it moves to discuss climate change policy in the United States since the George W. Bush administration. While climate change policy in the United States dates back to earlier administrations, larger transformations in climate policy have mostly taken place over the past twenty years, which is why I provide an overview of the policy starting from 2001. In the second part of this chapter, I discuss how climate change and media have converged, and how the issue has been framed in the media. I also discuss media polarization over the issue of climate change. In the last part of the chapter, I discuss the concept of responsibility. Furthermore, I establish the normative framework for defining responsibility for climate change following the social connection model by Iris Marion Young.

2.1 Climate Change

Challenges and risks posed by climate change are multifaceted and unprecedented. Moreover, many of its effects have already transpired and cannot be averted. Notably, temperature data from NASA (2017) reveals that 2016 marked the warmest year on record. This follows a prominent trend of global temperatures rising steadily since the 19th century. However, the most drastic change in temperatures has taken place only within the last 35 years (NASA, 2017). According to the consensus of climate scientists, global warming is mostly caused by human activities. In fact, 97% of climate scientists concur that global warming is man-made (Cook et al., 2016). While scientists have called attention to the warming of the climate for several decades, proper global action to mitigate the effects of climate change has been stagnant.

2.1.1 Anthropogenic Climate Change

Scientists (e.g., Geological Society of America [GSA], 2015; IPCC, 2013) have marked that global warming since the 1950s has been mostly caused by increased greenhouse gas emissions, resulting from human activities. Today, the majority of greenhouse gas emissions (notably, carbon dioxide, CO₂) in the United States originate from the burning of fossil fuels (such as oil, coal, and natural gas) in the transportation, electricity, and manufacturing sectors (Friedrich, Ge & Tankou, 2017; United States Energy Information Administration [EIA], 2019). On a global scale, the United States is responsible for 14% of the total greenhouse gas emissions (Friedrich, Ge & Pickens, 2017). The

other top emitters are China (27% of total emissions), the European Union (10%), India (7%), Russia (5%), and Japan (3%) (Friedrich, Ge & Pickens, 2017). Furthermore, the top three emitters (China, the United States, and the European Union) are responsible for more than half of the total emissions (Friedrich, Ge & Pickens, 2017).

Recent scientific reports indicate that greenhouse gases in the atmosphere are increasing at an ever-growing rate, and scientists assert that there is no sign of decline or slowdown (World Meteorological Organization [WMO], 2019). Moreover, greenhouse gases in the atmosphere reached a record high in 2018, according to WMO (2019). The effects of rising emission rates are multifaceted as numerous accounts of research on human-induced climate change demonstrate. While some effects of the increased emission levels have already become measurable and visible, others will take longer to transpire, likely having more devastating effects to the biosphere and altering the way of living worldwide.

To address these drastic and human-caused changes in the history of the world, the concept of Anthropocene has recently emerged in and out of the scientific community, describing the current period in geology. Composed by Nobel Laureate Paul Crutzen, the term refers to a new epoch in the history of the Earth, in which human activity has greatly altered the state of the planet (Zalasiewicz et al., 2010). Zalasiewicz et al. (2010) remark that the epoch of Holocene, which began over 11,000 years ago, is still formally considered to continue to the present. However, Zalasiewicz et al. (2010) argue that speaking of a new epoch is grounded since the impacts of human activity on the climate have been so drastic and profound in recent centuries. According to the Anthropocene Working Group (AWG), Anthropocene should be formally recognized as the new geological epoch (AWG, 2019). The AWG (2019) panel argues that “the ‘Great Acceleration’ of population growth, industrialization and globalization” in the mid-twentieth century should mark the advent of the new epoch (Working Group on the ‘Anthropocene’ section). Consequently, the term “anthropogenic climate change” has emerged to denote the fact that global warming is primarily human made.

The realism of Anthropocene was addressed in 2015 in drafting of the Paris Agreement, a landmark global agreement to tackle climate change, formulated by the members of the United Nations Framework Convention on Climate Change (UNFCCC). Participation to the UNFCCC is virtually universal; thus, it is the primary multilateral institution for approaching climate change mitigation globally (UNFCCC, n.d.). Drafting of the Paris Agreement was largely celebrated, as it establishes a mutual goal of tackling human-induced climate change through adaptation and mitigation efforts.

Particularly, limiting greenhouse gas emissions was a foremost objective of the agreement. Among its most notable targets, the Paris Agreement establishes a limit for global warming to below 2 degrees Celsius (above the pre-industrial levels), while encouraging efforts to limit the increase to 1.5 degrees (UNFCCC, 2015). However, the agreement does not institute mutual strategies or plans on how to achieve and maintain the targets set by the agreement. Instead, the agreement demands that each nation implements their own plans and efforts to achieve the shared targets of the Paris Agreement. These individual climate plans are called nationally determined contributions (NDCs), which are at the core of the agreement and will be evaluated by the UNFCCC regularly (UNFCCC, 2015).

Despite the efforts of the Paris Agreement to curb greenhouse gas emissions, recent reports indicate that emissions in the atmosphere are increasing at a rapid rate (WMO, 2019). Moreover, in 2019, the Emissions Gap Report by United Nations Environment Programme found that even if all NDCs of the Paris Agreement are fulfilled, temperatures will increase by 3.2 Celsius degrees. In order to achieve the goal of 1.5-degree increase set by the Paris Agreement, nations must revise their NDC plans and commit to at least a fivefold increase of their emission reduction targets, according to the Emissions Gap Report (2019).

2.1.2 Climate Change Policy in the United States

On November 4, 2019, the administration of U.S. President Donald Trump formally announced the intention to withdraw from the Paris Agreement (Pompeo, 2019). President Trump's decision was expected, as he has firmly criticized the agreement, claiming that it is economically unfair to American businesses, workers, and taxpayers (Pompeo, 2019). The decision to leave the milestone agreement was met with condemnation by the scientific community and other signatories of the agreement. Such a radical move to evade a global climate agreement is not unprecedented in the history of U.S. climate policy, however, nor was it unexpected considering the president's skepticism on anthropogenic climate change.

Trump's decision to withdraw from the agreement follows a longstanding political deadlock surrounding proper climate change action in the United States. Similarly, in 2001, the administration of President George W. Bush (2001-2009) opposed the Kyoto Protocol of 1997 and refused to implement it due to its economic disparities (Bush, 2001). The Kyoto Protocol was one of the predecessors of the Paris Agreement, and its main tenet was to cut greenhouse gas emissions

based on individual, country-specific targets. The protocol had already been signed by President Bill Clinton in 1997, but it failed to be ratified by the Senate. According to Bush, the protocol was fundamentally flawed, as it did not implement the same requirements for reducing greenhouse gas emissions to all nations (Bush, 2001). Specifically, the protocol mandated that developed nations take on the main burden of reducing emissions. Bush argued that implementing the protocol would have caused a “negative economic impact” for the United States, leading to “layoffs of workers and price increases for consumers” (Bush, 2001, para. 17).

McCright and Dunlap (2003) argue that the opposition of the American conservative movement (a key section of the anti-environmental countermovement) was a major reason why the Kyoto Protocol failed in the United States. This countermovement incorporated large fossil fuel corporations and businesses, as well as conservative think tanks, the conservative media, and lobbying groups (Dunlap, McCright & Yarosh, 2016). McCright and Dunlap (2003) contend that the conservative movement managed to challenge the validity of global warming as a social issue. Additionally, McCright and Dunlap (2003) remark that the conservative movement greatly benefited from the Republican takeover of Congress in 1994, which ultimately helped the movement and the science sceptics to gain momentum.

McCright and Dunlap (2003) observe that as a result of the anti-environmental countermovement, the global warming debate shifted from discussing mitigating actions to complete denial of the problem. Consequently, climate skepticism soared during the Bush administration of 2001-2009 (Selin & VanDeever, 2011). Furthermore, his administration refused to implement regulations concerning mandatory greenhouse gas restrictions and continued to downplay climate change as an issue (Selin & VanDeever, 2011).

The administration of President Barack Obama (2009-2017) demonstrated a shift in support for regulations limiting greenhouse gas emissions. The Paris Agreement, which remains one of the most notable climate policy accomplishments of the Obama administration, was signed in 2016. As the agreement reached the required threshold for its implementation, Obama declared that the agreement would mark “a turning point for our planet” (Obama, 2016, para. 3). In federal climate politics, the Obama administration worked to implement comprehensive laws on climate change, but his proposals struggled to pass in Congress (Selin & VanDeever, 2011).

Selin and VanDeever (2011) note two causes for the lack of support for the proposals. First, they observe that conservative and Republican voters tend to reject regulatory actions on greenhouse gas emissions, mostly due to skepticism on human-caused climate change (Selin & VanDeever, 2011). Second, according to Selin and VanDeever (2011), representatives from states that have large industries based on the extraction of natural resources appear to agree with the interests of the industries. Comparably, representatives from states with large manufacturers oppose carbon dioxide emission regulations (Selin & VanDeever, 2011). Lobbying from state industries affects both Republican and Democratic members of the Congress, according to Selin and VanDeever (2011).

Furthermore, Dunlap, McCright and Yarosh (2016) note that a significant move to the right was noticeable in the Republican party in the beginning of the Obama administration. This resulted in disproportioned polarization within the political elites and the public, as the swift to the left was not as drastic within the Democratic party (Dunlap, McCright, Yarosh, 2016). This shift to the right appeared notably radical on questions of environmental protection and policy (Dunlap, McCright & Yarosh, 2016). Dunlap, McCright and Yarosh (2016) remark that in 2015 the Republican party almost unanimously stood in opposition to government regulations of environmental protection.

Selin and VanDeever (2011) observe that while progress on climate change legislation at the national level has been limited, policymaking on the local and state levels has been more successful. They contend that this is due to a longstanding U.S. tradition of environmental federalism, in which environmental policies (for example on air pollution) are first implemented on a subnational level, which can ultimately push for comparable national standards (Selin & VanDeever, 2011). For example, for decades, the state of California has been the forerunner of implementing state-wide environmental policies, especially concerning air pollution regulation, which have been similarly adopted by other states (Konisky & Woods, 2018). However, as climate change is a global issue that does not acknowledge state borders, relying solely on environmental federalism may not produce change as fast as the situation requires.

The Paris Agreement is one of many climate and environmental policies that the administration of President Donald Trump (2017-) has attempted or managed to overturn. For instance, in March 2017, Trump signed an executive order to suspend the Clean Power Plan, an Obama-era policy, which entailed restrictions on greenhouse gas emissions from the power sector in order to lower the emission rate by 32% by 2030 (McCoy & Just, 2019). Consequently, the Clean Power Plan was rolled back in 2019 and replaced by the Affordable Clean Energy rule, which is expected to reduce

carbon emissions solely by 0.7% by 2030 (McCoy & Just, 2019). According to Konisky and Woods (2018), the reduction of existing policies and the increased weight on the role of states are the two most notable observations of the Trump administration's approach to environmental policy. For President Trump, the motivation for rolling back national regulations such as the Clean Power Plan is highly economical: the oil and gas industries in the United States have been experiencing a boom over the last two decades (EIA, 2020), and Trump's position for "energy independence" (White House, 2019) will likely advance the fossil fuel revolution at the cost of environmental and climate protection.

Selby (2019) notes that, in addition to swift changes in U.S. climate change policy, Trump's presidency will likely heighten the internal polarization concerning climate change. Skepticism concerning global warming or anthropogenic climate change is especially high among Republicans (in high contrast to Democrats) (Selby, 2019), and climate change denial has practically become a quintessential part of the "conservative white male identity" (McCright & Dunlap, 2011a, p. 1168). Furthermore, Selby (2019) observes four causes for the entrenched skepticism toward climate change. First are the American traditions of liberalism, characterized by the distrust in government regulation and remnants of settler-colonialism, which deem that natural resources are vast and free for exploitation (Selby, 2019). Second is the lobbying of fossil fuel and financial industries, as well as mainstream media, which have incited anti-regulatory attitudes for their own interests (Selby, 2019). Third, Selby (2019) remarks that such attitudes are rather a defensive reaction against the destruction of established privileges that the "conservative white male" has thus far enjoyed. Lastly, on a global scale, the position of the United States is shifting, and the concern over the decline of the American hegemony is expanding (Selby, 2019).

2.2 Climate Change in the Media

Following the expansion of news reporting on climate change over the past few decades, diverse studies of climate change communication have emerged. Since the 1990s, numerous studies have investigated the influence of media representation of climate change in the mass media, and during the last two decades, more nuanced studies concerning climate change and media have emerged, also outside of North America and Europe (Boykoff, 2011). This sub-chapter of the literature review includes an overview of the existing literature on climate change in the media. However, taking into account the vast literature on climate change and media, I do not strive to produce an exhaustive review of the existing literature. Arguably, such a review would fall out of the scope of

this thesis. The focus in this sub-chapter is on the media representation, media framing, and media polarization.

The media's role in the climate change debate is predominantly that of an informant and communicator. Notably, the media works as the scientific community's interpreter toward the public and decision-makers: media representations of climate change influence and shape public awareness, deliberations, and action (Boykoff, 2011). Furthermore, science no longer posits the role of an "ivory tower," (Carvalho, 2007, p. 224) separate from public discourse and deliberation. Rather, it has integrated into public debates, politics, and business, which has caused science to come under public scrutiny (Carvalho, 2007).

The media's role as a source for public knowledge is long-established, also in news concerning climate change. A study by Kris Wilson (1995) demonstrated that the media holds an integral role in informing the public about the climate: half of the study respondents received their knowledge about global warming primarily from the media, notably from television. Although the media's role is elemental in informing the public, it does not necessarily work to provide multi-dimensional analyses or aim to answer complex questions about the climate (Boykoff, 2011).

Boykoff (2011) argues that in order to improve the public's knowledge of science, increased coverage of climate-change-related news will not suffice, since extensive media attention to the issue can yield even more questions to be answered and spark contesting interpretations of the phenomenon. Rather, media coverage of climate change ought to be more precise and contextual, involving joined efforts from the media, the scientific community, and the policy-making sectors (Boykoff, 2011). This can lead to better, more knowledgeable decision-making about climate change, Boykoff (2011) remarks.

2.2.1 Media Representation

In terms of news content, Bennett (1996) argues that three types of principal normative orders exist in the media sphere. These normative orders include political norms, which hold that the mass media ought to act as an informant toward the public, thus keeping political officials accountable; economic norms, which demand profitability and effectiveness; and journalistic norms, which hold values such as objectivity and balance as ideal (Bennett, 1996, p. 375). Boyce and Lewis (2009) contend that these norms affect, for instance, the selection of "newsworthy" (p. 45) news and how

those pieces of news are framed. Ultimately, these norms can lead to what Boykoff and Boykoff (2004) have identified as “balance as bias” (p. 129), which refers to a skewed coverage of climate change as a result of giving equal weight to both sides of the story. Furthermore, their study found that in the U.S. press, the norm of balanced reporting results in significant informational bias in terms of coverage of anthropogenic climate change and action regarding global warming (Boykoff & Boykoff, 2004). Informational bias refers to an analytical preconception that is lacking in accuracy (Boykoff & Boykoff, 2007).

Boyce and Lewis (2009) note that while it is grounded to hold the news media accountable for the skewed climate change reporting, the media itself embraces only a fraction of the dilemma. The commercial background of media and telecommunications policy, which is driven by profit growth and advertising, is additionally at play (Boyce & Lewis, 2009). Furthermore, influencing by different interest groups and political leaders affects climate change reporting as well through the selection of news frames (Bolsen & Shapiro, 2018).

In an empirical study of five national newspapers in the United States, Trumbo (1996) identified three prominent stages, in which the issue of climate change was presented in the news. First, frames that highlighted problems or causes for climate change were associated with scientists (Trumbo, 1996). Second, frames that accentuated judgments or remedies were associated with politicians and special interests (Trumbo, 1996). Lastly, accounts from scientists diminished as the issue of climate change became progressively politicized (Trumbo, 1996). This view is supported by a recent study by Chinn, Hart and Soroka (2020), which analyzed articles from major U.S. newspapers between 1985 and 2017 and found that climate change reporting has become increasingly politicized. Furthermore, they note that increased politicization of climate change has resulted in less accounts from scientists and more mentions of political actors in the media (Chinn, Hart & Soroka, 2020).

In recent decades, new actors and advocating voices have emerged in the public debate concerning climate change. Celebrities of various platforms and professions have joined the scientists, corporations, and organizations in advocating and campaigning for humanitarian and environmental issues, notably climate change. Boykoff, Goodman and Littler (2010) argue that celebrities have evolved into “the new ‘charismatic megafauna’ for climate awareness, understanding and engagement” (p. 2), thus stealing the spotlight from the usual icons of climate change, such as polar bears and melting glaciers. They note that by combining the popular culture and the crisis of climate

change, celebrities help to bring the issue closer to the daily life (Boykoff, Goodman & Littler, 2010). By engaging with celebrities, the public can emotionally associate with others who observe and experience climate change first-hand (Doyle, Farrell & Goodman, 2017). Today, the rise of social media only heightens the appeal of the so-called eco-celebrities, especially to younger audiences (Alexander, 2013).

Moreover, celebrity activists, who exist outside of the traditional political organizations, appear to hold moral authority (Doyle, Farrell & Goodman, 2017). With influence akin to non-governmental organization (NGOs), celebrities perform as mobilizing agents, boosting awareness and guiding public opinion (Anderson, 2011). While the power of celebrity endorsements has been widely acknowledged and utilized by many environmental NGOs, it ought to be noted that branding of climate change through celebrity voices can also be a marketing opportunity, ultimately resulting in more consumption rather than more mitigation efforts (Boykoff, 2011). Furthermore, celebrity endorsements from attractive and seemingly trustworthy celebrities can incite greenwashing, thus leading their audiences to believe false claims about a certain product's eco-friendliness (Bhatnagar & Verma, 2019).

2.2.2 Media Framing

Robert Entman (1993) describes the process of framing as to “select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described” (p. 52). In that sense, news framing approaches the issue of responsibility by evaluating what actors are causally or morally involved, and by providing solutions or treatments for the deemed issue.

In terms of effectiveness of news framing, studies demonstrate that framing is as equally important as principal facts in news reporting of political issues (de Vreese, 2004). However, the effects of framing vary, and research findings exhibit that knowledgeable news consumers have greater and more refined information processing of the framing and facts portrayed in the news (de Vreese, 2004). Notably, when interpreting political debates or issues, the public utilizes news frames as alternative, explorative routes that accompany their prior judgments, which are gathered through individual experiences, conversations, and notions of ideology and identity (Nisbet, 2009).

In the 1980s, American political scientist Shanto Iyengar conducted a study, in which he analyzed how television impacts public opinion on political issues (Iyengar, 1991). Specifically, his study focused on how the news media frames political issues, such as crime, terrorism, poverty, unemployment, and racial inequality. The results of his study confirm that framing of political issues on television affects the public's attributions of responsibility (Iyengar, 1991). "Individuals tend to simplify political issues by reducing them to questions of responsibility, and their opinions on issues flow from their answers to these questions," Iyengar (1991, p. 8) notes.

Iyengar's (1991) study analyzed two predominant frames, which are generally used in news reporting; episodic frame is often used in news about specific events or cases, such as acts of terrorism, whereas thematic frame sets political questions into some general context. Using the example of television news, which tend to be episodic, Iyengar (1991) argues that issues that cannot be reduced to specific events, such as global warming, are rarely reported by the news. Furthermore, according to Iyengar (1991), episodic news framing negatively affects the audience's notions of responsibility: the viewers are less likely to perceive public officials responsible for the existence of a political issue (causal responsibility) and less likely to hold them accountable for fixing the issue (treatment responsibility). Episodic news framing is thus more likely to produce personal rather than social attributions of responsibility (Iyengar, 1991). He also found that thematic framing works the opposite way, emphasizing the responsibility of the society rather than that of the individual (Iyengar, 1991).

Iyengar's influential study of episodic and thematic framing provided an early inspection into how news media frames responsibility for social and political issues. His study has since been complemented with further studies of media framing of responsibility. In terms of studies relating to framing of climate change, Hart (2011) found that when describing the impact of climate change on polar bears, thematic framing boosts support for government policies more than the use of episodic framing.

Boykoff and Boykoff (2007) argue that the collective mass media norms of "dramatization, personalization, novelty, balance, and authority-order" (p. 1201) contribute to informational bias in the news, which leads to episodic framing of the news. Not only does episodic framing contribute to a narrower understanding of political and social issues (Iyengar, 1991), this informational bias has ultimately helped the government of the United States to adjourn action and downplay its responsibility for climate change (Boykoff & Boykoff, 2007).

Building on previous research concerning the use of frames within policy debates about science (for issues ranging from nuclear energy to evolution), Matthew C. Nisbet (2009; 2010) identifies a typology of common frames that similarly apply to debates surrounding climate change (Table 1). Having witnessed discussions among scientist and journalists, Nisbet (2009) remarks that climate change communication often lacks in effectivity in terms of public engagement. Thus, Nisbet (2010) posits that in order to “overcome the communication barriers of human nature, partisan identity, and media fragmentation,” (p. 44) the news media ought to alter their messages depending on the medium and the audience. This will entail adjusting the coverage so that it resonates with the intended audience’s values and backgrounds (Nisbet, 2010). Nisbet (2010) argues that a common typology of frames can help match the discussions to the intended audience and understand the dynamics of the climate change debate.

Table 1: Typology of frames that consistently appear across science policy debates (Nisbet, 2010, p. 52; also in Nisbet, 2009, p. 18)

Frame	Defines science-related issue as...
Social progress	...improving quality of life, or solution to problems. Alternative interpretation as harmony with nature instead of mastery, “sustainability.”
Economic development & competitiveness	... economic investment, market benefits or risks; local, national, or global competitiveness.
Morality & ethics	... in terms of right or wrong; respecting or crossing limits, thresholds, or boundaries.
Scientific & technical uncertainty	... a matter of expert understanding; what is known versus unknown; either invokes or undermines expert consensus, calls on the authority of “sound science,” falsifiability, or peer-review.
Pandora’s box/Frankenstein’s monster/runaway science	... call for precaution in face of possible impacts or catastrophe. Out-of-control, a Frankenstein’s monster, or as fatalism, i.e. action is futile, path is chosen, no turning back.
Public accountability & governance	... research in the public good or serving private interests; a matter of ownership, control and/or patenting of research, or responsible use or abuse of science in decision-making, “politicization.”
Middle way & alternative path	... around finding a possible compromise position, or a third way between conflicting/polarized views or options.
Conflict & strategy	... as a game among elites; who’s ahead or behind in winning debate; battle of personalities; or groups; (usually journalist-driven interpretation).

Nisbet (2010) argues that the *conflict and strategy* frame has been commonly used in political reportage of public debates, which has resulted in a false balance of contrarian views to climate change. This “balance as bias,” as Boykoff and Boykoff (2004) call it, has ultimately helped the strategy of the Republicans (Nisbet, 2009). Furthermore, Nisbet (2009) notes that the framing strategies of Democrats and Republicans for climate change communication have traditionally varied from each other. According to Nisbet (2010), the *morality and ethics*, *public accountability*, and *Pandora’s box* frames have been frequently employed by the Democrats in climate-change-related policy debates, whereas the *scientific uncertainty* and *economic consequences* frames have been favored by the Republicans, which arguably demonstrates the partisan divide over the issue of climate change.

Nisbet’s (2009; 2010) typology of frames presents a deductive framework for interpreting and communicating the climate change debate. It is not comprehensive, however, as new frames can emerge or occur as issue-specific frames.

Zehr (2009) contends that beyond the traditional use of the uncertainty frame and journalistic balance, a significant level of “hybridization” has occurred in the U.S. media coverage of climate change since the 1990s (p. 80). Particularly, a hybrid, issue-specific frame, which integrates environmentalism and economics, has emerged as a contesting frame to the uncertainty and controversy frames (Zehr, 2009). Zehr (2009, p. 85) argues that through this integration, environmental issues are viewed as questions of economic inadequacy and answers to environmental questions are considered as economic prospects. Through a content analysis of four U.S. newspapers during the time period of 2000-2008, Zehr (2009) identifies several hybrid constructions, which implement the integration of environmentalism and economics, namely “cap-and-trade policies,” “global warming as business opportunity,” “environmental or business coalitions,” and “CEO as environmental statesman” (pp. 85–90). Through these hybrid frames a deeper apprehension of the socioeconomic consequences of greenhouse gas reductions can be achieved, according to Zehr (2009).

An interesting study by Hart and Feldman (2014) analyzed how messages of threat and efficacy relating to climate change were delivered in the media. Specifically, by using Nisbet’s (2009; 2010) typology of climate-change-related frames as a basis, their study investigated how climate change impacts and actions were framed in the media and measured the prevalence of such frames (Hart &

Feldman, 2014). Hart and Feldman (2014) found that climate change impacts and actions are usually discussed separately, causing these issues to be covered rather episodically than thematically. The most interesting revelations of the study demonstrated that little news coverage was concentrated on the political receptiveness to public calls for taking action, and that deliberate personal actions by individuals were rarely discussed (Hart & Feldman, 2014). Furthermore, taking action against climate change was generally framed negatively by emphasizing conflicts and power plays rather than focusing on the environmental or economic benefits of taking action (Hart & Feldman, 2014). Hart and Feldman (2014) conclude that, based on the results of their study, the journalistic bias toward the use of the conflict and strategy frame persists.

2.2.3 Media Polarization

Nisbet (2009) argues that the ideological divide over the issue and nature of climate change has ultimately resulted in “two Americas” (p. 22). This division is highlighted in the results of a survey by Pew Research Center (2020), which found that 78% of Democrats and Democratic-leaning independents view climate change as a top priority. Among Republicans and Republican-leaning independents, only 21% consider climate change a major policy priority (Pew Research Center, 2020). Similarly, a survey by Yale Program on Climate Change Communication found that global warming has outpaced other generally more divisive issues such as abortion, and it is now the most polarizing issue in the United States (Leiserowitz et al., 2019). Moreover, findings of a study by McCright and Dunlap (2011b) imply that not only do Democrats and liberals generally acknowledge the existence of anthropogenic global warming, they also support the consensus of scientists and environmental organizations or movements. Contrarily, Republicans and conservatives are more inclined to reject the scientific consensus and favor the modern structure of capitalism, thus refusing to admit its effects to the climate (McCright & Dunlap, 2011b).

Earlier in this chapter, I discussed the transformation of climate change policy in the United States since the George W. Bush administration. Notably, implementation of protective environmental and climate policies stagnated under the Bush and Trump administrations, with only small advances during Obama’s presidency. Arguably, the elite polarization over climate change is echoed in the media. Based on international comparisons of climate change coverage, Boyce and Lewis (2009) argue that the national media tends to reflect the government’s stance on climate change; notably, “where governments take the issue seriously, the media are inclined to follow suit” (p. 10).

Furthermore, as Chinn, Hart & Soroka (2020) conclude, increased politicization of climate-change-related news coverage has arguably resulted in increased polarization of the issue. Particularly, as accounts from scientists diminish and mentions of political actors increase in the news, the opinions of political elites are likely to influence public opinion, thus extending the partisan division (Chinn, Hart & Soroka, 2020).

2.3 Responsibility

In this section, I seek to define the concept of responsibility by introducing Young's (2011) social connection model of responsibility. Young's model of responsibility supposes a shared obligation to address issues of structural injustice, such as climate change: a responsibility that is both collective and political.

In discussions of climate change, the issue of responsibility is often raised. In the media and politics, attention to the issue has led to large debates about liability and accountability as there exists no clear approach for distributing responsibility for a complex issue such as climate change. In these settings, responsibility for taking action is generally assigned to different actors, groups or nations, depending on their perceived contribution to the issue. O'Mahony (2015) claims that the notion of responsibility essentially holds the "moral core" (p. 308) of public and private discussions of climate change.

As the public discourse on climate change responsibility demonstrates, the concept of responsibility is ambiguous due to its highly contextual use. In everyday use, responsibility is often used to assign blame for a wrongful deed. In a professional setting, responsibility can refer to obligations a person holds due to his or her social or professional status (Auhagen & Bierhoff, 2001). Within some contexts, such as in legal theory, the grounds of responsibility are rather defined. In legal theory, responsibility is predominantly viewed as a liability (Young, 2011). Legal liability deems that those whose actions are directly linked to a harm must be held responsible and pay for the damage caused (Young, 2011).

Responsibility, in many respects, has been studied and criticized by various political philosophers. Accounts on collective responsibility have traditionally concentrated on backward-looking approaches, whereas contemporary philosophers have recognized forward-looking models of responsibility (Smiley, 2017). While backward-looking collective responsibility assigns causal

responsibility and seeks to cast moral blame, forward-looking responsibility holds individuals collectively and morally charged to remedy the harm (Smiley, 2017). Young's (2011) social connection model, which is presented as the main normative theory of responsibility in this thesis, is an example of a forward-looking approach of responsibility.

Moreover, the notion of responsibility has been questioned and accounted for by several scholars seeking to produce a model of responsibility to address climate change. However, assigning responsibility for complex and global issues such as climate change is challenging, especially since questions concerning climate change do not match the dominant notions of responsibility, which are, specifically, individual, retrospective, and legal responsibility (Larrère, 2018). As Larrère (2018) notes, responsibility for climate change is first historical, as it is anthropogenic and predominantly caused by developed nations, but also prospective, since it requires that actions to mitigate future impacts are adopted universally.

Notably, this dual description of responsibility concerning climate change has been acknowledged in the United Nations (UN) "Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC)" principle of 1992 (UNFCCC, 1992). This principle holds that all states must answer for global environmental issues while simultaneously taking into account the individual states' contribution to the issue and capabilities to alleviate it (Stone, 2004). Larrère (2018) remarks that the CBDR-RC approach has been fairly limited, as it has focused mainly on distributive justice. Moreover, that approach has mostly focused on economic issues through state or market regulations and through cosmopolitan or domestic justice (Larrère, 2018).

Considering the complex maze of responsibilities, Larrère (2018) questions what role an individual has in terms of responsibility for climate change. Asserting individual responsibility for climate change is difficult, as it is impossible to identify individual acts of harm that have contributed to climate change (Larrère, 2018). Larrère (2018) claims that Young's social connection model yields a prospective approach to the dilemma of individual responsibility. Larrère (2018) contends that Young's model presents a shift from individual and moral responsibility to collective and political responsibility. Thus, instead of punishing individuals for their actions, the model seeks to inspire individuals to take collective action and change the unjust structures (Larrère, 2018).

Next, I take a closer look at the social connection model by Young and analyze why it is a suitable approach for responsibility concerning climate change. It ought to be noted, however, that Young's

model is only one approach to assigning responsibility for climate change, and in this thesis, its function is to serve as a normative framework for analyzing responsibility in the limited setting of the thesis. A pluralistic approach, combining various theoretical conceptions of responsibility, could, however, be granted considering the multifaceted social structures that are at play when discussing responsibility for social structural issues (Lahikainen, 2018). Nonetheless, considering the limited scope of the thesis, I utilize Young's model as a basis for "understanding the responsibility of individuals embedded in complex and global social structures," as suggested by Lahikainen (2018, p. 50).

2.3.1 The Social Connection Model of Responsibility

In her posthumous book, *Responsibility for Justice* (2011), Iris Marion Young argues that the traditional backward-looking and liability-oriented approach of responsibility is not feasible for issues of social justice. Instead, Young (2011) presents a model of responsibility that aims to shift focus from finding the culprits to cultivating communal action. Her model is particularly influenced by Hannah Arendt's notions of political responsibility and guilt. Young (2011) criticizes the traditional liability model of responsibility for its restrictions and for merely pursuing the liable parties. Young (2011) contends that the concept of liability is central to legal debates, but it is not lucrative in situations of structural injustice.

For Young (2011), structural injustice is a certain type of moral wrong that is not performed by an individual or an oppressive governmental policy. Moreover, it occurs "when social processes put large groups of persons under systematic threat of domination or deprivation of the means to develop and exercise their capacities, at the same time that these processes enable others to dominate or to have a wide range of opportunities for developing and exercising capacities available to them" (Young, 2011, p. 52). Thus, it is the process that is at fault.

Young (2011) notes that in issues of structural injustice it is not realistic to assign blame on a personal level, since it is not possible to measure the direct impact of an individual's actions. Structural injustice is enabled and maintained by a web of laws, policies, institutions and actions that collectively form an organization, in which privileges are not all-inclusive (Young, 2011). Maintaining the structure and abiding its rules is a norm (Young, 2011). Therefore, it is not feasible to hold a particular actor accountable for indirectly taking part in maintaining the system (Young, 2011). Thus, Young (2011) argues that in issues of structural injustice conceptualization of

responsibility should look beyond liability, while also acknowledging the root of harms within the structures that enable injustice. Young (2011) claims that her social connection model represents this approach of responsibility for structural injustice.

Arguably, climate change can be seen as an issue of structural injustice, as it is a global phenomenon, for which no single individual or nation is solely responsible. Moreover, as global warming progresses, inequalities across the world exacerbate. Notably, the effects of global warming are likely to be more critical within the poorest regions of the world (Hallegatte et al., 2016). In fact, Islam and Winkel (2017) note that inequality and climate change do not intersect solely across nations (inter-country inequality); climate change will also create inequalities within nations. Thus, implementing Young's model to address climate change is grounded. Furthermore, the model helps to establish climate change as a social and political issue, rather than seeing it solely as environmental or scientific one.

2.3.2 Five Main Features of the Social Connection Model

In *Responsibility for Justice* (2011), Young draws five main features of the social connection model, through which she seeks to demonstrate that her model is better suited for issues of injustice than the traditional notions of responsibility. Next, I will briefly describe these features to provide a better understanding of how her model works.

First, Young (2011) argues that the social connection model is not isolating. Unlike in the liability model, the social connection model does not seek to assign fault or guilt over individuals or collectives (Young, 2011). Even if the perpetrator can be isolated, it does not lessen the responsibility of others who through their own actions participate in maintaining structural injustice, Young (2011) contends.

Second, Young (2011) argues that the approach to background conditions is different in the social connection model than in the liability model. Whereas the liability model of responsibility aims to fix a deviated situation through compensation and return to "normality" by doing so, the social connection model seeks to reveal the background conditions of the unjust actions and question their morality (Young, 2011). Young (2011) notes that structural injustice is maintained and produced through norms, rules, and habits within the surrounding institutions and communities. Actions that maintain them are often unconscious and without intent of harm (Young, 2011). However, Young

(2011) holds such actions as responsible for structural injustice, even if the existing rules deem them in a positive light.

Third, the social connection model is predominantly forward-looking. According to Young (2011), fault-finding is a backward-looking process, in which the incident or harm has already happened, and the practice of finding the guilty party only seeks to amend the occurred harm. Contrary to that, the social connection model strives to tackle issues of injustice that are recent, ongoing, or likely to maintain if the social systems do not change (Young, 2011). Young (2011) comments that the social connection model is essentially backward-looking only when it seeks to understand the existing system. However, even then the focus is on evaluation of the system – not on casting blame (Young, 2011).

According to Young (2011), the fourth essential feature of the social connection model is that responsibility is shared. Moreover, it is shared by everyone who through their actions maintain the processes that create structural injustice (Young, 2011). Young (2011) argues that a shared responsibility is still personal: as a partaker in maintaining structural injustice, one must acknowledge the harmful impact of one's actions, even when its direct results are not identifiable. She asserts that the shared responsibility maintains that unjust processes can be transformed through shared action, in which each partaker is individually responsible for the outcome (Young, 2011). Ultimately, this shared action aims to transform the unjust processes, resulting in less injustice (Young, 2011).

Lastly, following the feature of shared responsibility, Young (2011) argues that the social connection model is distinct from the liability model in the sense that it demands collective action. Young (2011) argues that the forward-looking approach requires transforming the existing organizations and processes, which essentially requires the effort of many. Moreover, Young (2011) notes that in order to be effective, collective action must be all-inclusive, with actors from different parts of the organizations joining in. This, Young (2011) argues, is a form of political responsibility, which is both public and shared. Young (2011) notes that instead of viewing the government institutions as separate entities that hold the responsibility to correct issues of injustice, they should be viewed as facilitators of organized action, although such action can also take place without the support of the government.

2.3.3 Establishing a Framework of Responsibility

The previous section provided an overview of the social connection model of responsibility, which addresses issues of structural injustice. Thus, it can be employed to address issues concerning climate change and global warming. Moreover, as a model of collective (political) responsibility, it presents a normative framework for climate change mitigation.

Therefore, the social connection model forms the main normative theory of responsibility in this study. I have chosen, however, to utilize terminology used by Shanto Iyengar (as discussed earlier in section 2.2.2 of this thesis) to establish different types of responsibility as I deem them more effective in approaching the issue. In his study of news framing, Iyengar (1991) distinguishes two notions of responsibility: “treatment responsibility” and “causal responsibility.” Although Young (2011) does not employ these terms in *Responsibility for Justice*, treatment responsibility can be seen as a type of forward-looking, non-isolating approach, whereas causal responsibility appears to be a backward-looking, fault-finding approach. Thus, it appears that treatment responsibility mostly employs the social connection model, whereas causal responsibility matches what Young (2011) calls the liability model.

Ultimately, through her model, Young (2011) ascertains a shared model of responsibility, in which each individual is socially connected through structural processes. Thus, due to these connections, this model posits that responsibility is collective. This collectiveness is distinguishable from notions of individual responsibility that are employed, for instance, in the liability model of responsibility. These notions of treatment and causal responsibility, as well as individual and collective responsibility, form the primary framework, through which the issue of responsibility is analyzed in this study.

3 METHODOLOGY

This section of the thesis explains the data and methods used in the study. I begin this section by introducing frame analysis as the research method of this thesis. Next, I describe how the data was collected from the chosen sources. After explaining the data collection process, I define the steps taken in the data analysis phase. Lastly, this chapter concludes with my remarks on the validity and reliability of the research.

3.1 Qualitative Research through Frame Analysis

This study takes up a qualitative research positioning. Graue and Karabon (2012) argue that qualitative research is essentially more than an evaluation of the quality: it also involves epistemology (the theory of knowledge), methodology and methods, as well as the theoretical framework. Qualitative research remains an umbrella term for a collection of research approaches across different disciplines. Acknowledging the varying definitions of qualitative research, in this study I adopt the explanation by Denzin and Lincoln (2008), who argue that qualitative research employs “an interpretive, naturalistic approach to the world” (p. 4) by examining and providing knowledge about the meanings of real-world phenomena. Arguably, qualitative research can yield realistic understandings of social phenomena, and thus it is a suitable, and often employed, model for social science research.

Recognizing that qualitative research itself is an umbrella term, this study employs specifically a method of frame analysis (also referred to as framing analysis). Frame analysis has become notably popular in media and communication research since its introduction in the 1970s. The concept of frame analysis was first coined by sociologist Erving Goffman in 1974. For Goffman (1974), a frame means the identification of “principles of organizations which govern events” (pp. 10–11) and the subjective experience within them. However, Deacon et al. (2010) argue that Goffman, in his original account of frame theory, preferred the term “framework” to describe these subjective “frames of reference” (p. 160).

Another pioneering study of framing was conducted by Kahneman and Tversky in 1981 in the field of psychology. Their frequently cited study found that framing affects people’s perceptions of risk and choice (Kahneman & Tversky, 1981). Their study concluded that perception of an issue is subject to the contextualization or the position of the framing (Cacciatore et al., 2015). The

difference between these two pioneering interpretations of framing is that the sociological grounds of framing often emphasize *what* information is being interpreted, whereas the psychological grounds of framing seek to establish *how* such information is being communicated (Cacciatore et al., 2015). Since the 1980s, these conceptions of frame and framing have been revised, extended, and also critiqued.

Since the early 21st century, framing has become the most commonly used theory in mass communication journals (Bryant & Miron, 2004). Apart from being a theory, framing has been described ambiguously within different epistemological and theoretical frameworks. For example, it has been referred to as an approach, a class of media effects, a paradigm, and a multiparadigmatic research program (D'Angelo & Kuypers, 2010).

Due to the ambiguity concerning the field of framing research, there exists no clear single method for how to analyze frames (Deacon et al., 2010). Not only is the method of frame analysis highly interpretive, relying on the knowledge and skills of the individual researcher, the study itself is eclectic and often used in conjunction with other analytical methods of research (Deacon et al., 2010).

This study adopts the conceptualization of framing by Robert Entman (1993), who establishes it as a research paradigm. Entman (1993) proposes that the function of frames is to describe problems, analyze causes, offer moral judgments, and propose solutions. Furthermore, Entman (1993) argues that framing entails both *selection* and *salience*, as it operates to select parts of an observed problem and makes them more salient (or in other words, more noticeable). The power of framing exists in salience, since it directs people's attention to selected parts of the issue, while simultaneously omitting other aspects (Entman, 1993).

3.2 Data Collection

Due to recent shifts in the media landscape, caused by the growth of social media and the decline of print media, new trends for consuming the news have evolved. Notably, online news consumption has increased in the last few years, with 33% of adults in 2018 receiving their news primarily online (Shearer, 2018). Similarly, social media is now the preferred platform of 20% of American adults (Shearer, 2018). In contrast, only 16% of U.S. adults today receive their primary news via print newspapers (Shearer, 2018). Although the popularity of television has remained mostly unwavering

(49% in 2018), it also witnessed a drop of 8% from 2016 to 2018 (Shearer, 2018). These trends in news consumption demonstrate the characteristics of the modern media landscape, which is often referred to as the hybrid media system. The hybrid media system is distinguished by the interdependence of what is considered the old and new media (e.g. the integration of print media and websites) (Chadwick, 2017). These contextual notions guided my study toward a selection of online news media sites that are popular and operate on multiple platforms, both old and new.

For the analysis, I have chosen three popular American news media sites which arguably also demonstrate the polarization of the U.S. media.¹ The three news sources are CNN, Fox News, and *The New York Times*. For the purpose of the study, I chose to include online news sources that provide mainly original content, although news aggregator sites such as Yahoo News and Google News have gained exponential popularity in recent years, surpassing other news providers in terms of the number of visitors. However, these news aggregators sites generally do not provide any original content, which is why they were not practical for the purpose of this study. All the chosen three news sources have origins in the old media but have established online presences via their websites since the mid-1990s.

Evaluation of the possible political bias and neutrality of the chosen websites is based on the Media Bias Chart (version 5.0) by Ad Fontes Media (2020).² The Media Bias Chart is a measurement and ranking tool for the American media landscape. Its publisher Ad Fontes Media is a non-partisan Public Benefit Corporation that was founded in Colorado with the aim of making “news consumers smarter and news media better” (Ad Fontes Media, 2020). Their method of ranking news outlets is based on extensive multi-analyst content ratings, which consider measurable indications of reliability and bias. The Media Bias Chart is comprised of nearly 7,000 individual ratings (Ad Fontes Media, 2020). It ought to be noted, however, that several other resources and rating engines that detect possible media bias are also available. For this thesis, I chose to utilize the Media Bias Chart by Ad Fontes Media due to their transparency of the methods used and the extensive amount of individual ratings based on which the rankings of bias were made.

¹ The popularity of the selected news media sites is based on the 2018 report by Statista, a German-based online portal for datasets and statistics. The report lists the most popular news websites in the U.S. based on the number of unique monthly visitors. News aggregator sites Yahoo News and Google News were the most and second-most visited news sites, respectively, according to Statista.

² The Media Bias Chart by Ad Fontes Media (2020) is available on their website, <https://www.adfontesmedia.com/>.

On the Media Bias Chart, reliability scores are presented on a scale of 0 to 64, where scores above 24 are considered acceptable and scores above 32 are considered good. Similarly, bias scores are presented on a scale of -42 to +42, where negative scores reflect political bias to the left and positive scores reflect political bias to the right. On this scale, scores close to zero reflect a neutral or balanced bias. I will next briefly introduce the three selected sources and their positions on the Chart.

CNN (abbreviation for Cable News Network) was founded in 1980 as a 24-hour all-news cable television channel, as the first of its kind. Since then CNN has expanded into multiple specialized TV channels and embarked on new platforms. CNN released its website, www.cnn.com, in 1995 (CNN, 2015). Today, CNN is owned by WarnerMedia, which is a subsidiary of AT&T, an American telecommunications company. On average, CNN receives 162 million unique digital visitors globally each month (CNN, 2019). The Media Bias Chart by Ad Fontes Media (2020) shows separate scores for CNN Broadcasts and the website (CNN.com). According to the Chart, CNN.com scores 42.22 points on reliability and -5.69 points on bias. The Chart indicates that CNN.com is a reliable news source with complex analyses. Furthermore, according to the Chart, CNN tends to skew left in its reporting.

The New York Times (“NYT” or “*The Times*”) is a New York City -based newspaper, founded in 1851. It is owned by the New York Times Company, which is a public trading company, operated by the Sulzberger family. *The New York Times* began publishing content online in 1996, when it launched its website, www.nytimes.com. Since 2011, content on the website has been behind a paywall, allowing five free articles per month for unsubscribed readers (Tracy, 2019). Altogether, the newspaper has nearly 3.8 million online subscription customers (Tracy, 2019). On the Media Bias Chart, *The New York Times* scores 47.50 points on reliability and -4.01 on bias. Thus, the Chart claims that the newspaper is highly reliable and may skew left in its reporting. As such, complex analyses, or a mix of fact reporting and analyses, is to be expected from *The New York Times*.

Fox News Channel (“Fox News,” or “Fox”) was launched in 1996 by media mogul Rupert Murdoch as a 24-hour cable news channel, with a focus on political and business news. Referring to itself as the “fair and balanced” media source, Fox News quickly gained popularity through its opinion programming, offering heavy-handed conservative criticism of current politics and associating with the Republican party (Ray, 2020). Today, Fox News Channel reaches nearly 90

million news consumers (Fox News Channel, 2020), and its digital presence is strengthened through its website, www.foxnews.com. The Media Bias Chart presents two different scores for Fox News: one for Fox News broadcasts and the other for the Fox News website (“Fox News Online”). Fox News Online scores 26.75 in reliability and 15.31 in bias on the Chart. Thus, according to the Chart, Fox News Online is acceptable in terms of its reliability, and it may offer opinions or fair persuasion. In terms of political bias, according to the Chart, Fox News Online skews right.

Data for the research was collected in January 2020 using the search functions available on each news provider’s website. Data was gathered from a pool of online articles published during the month of December 2019. I chose this timeframe for two reasons: first, the data that was collected was recent, and thus likely to produce meaningful, topical results, and second, more recent articles were easier to access on the websites as some of them did not allow searching by specific dates. Of the three sources, *The New York Times* is the only one operating behind a paywall; hence, I purchased an online subscription that allowed me to access and read all the online content available.

I utilized simple keyword method for searching valid news articles on each site. Initial search with words “climate change responsibility” provided less than twenty articles per each site. Thus, searches were conducted using keywords “climate change” as well as “global warming,” which resulted in a larger sampling size. After the searches, the dataset was gathered through purposive sampling, which is a non-probability sampling method that is based on the researcher’s own judgement in selecting the data for the study (Bryman, 2001; Vehovar, et al., 2016). This sampling method allowed me to select solely the most valid pieces of news pertaining to the research topic. Purposive sampling can also be justified since the design of the study was qualitative rather than quantitative. In practice, the purposive sampling entailed omitting articles, in which “climate change” or “global warming” was mentioned in an unrelated context. For instance, a CNN (December 10, 2019) article titled “Best things to do on water in Egypt” was left out of the dataset following this logic. In that article, climate change was mentioned once in a quote regarding the effects of climate change on the Egyptian reefs. Thus, the article was not valuable for this research.

3.3 Data analysis

I decided to utilize a computer software to help with the process of qualitative analysis. Due to its accessibility, I chose to use ATLAS.ti. Already in the data collection process, I began familiarizing myself with the material as I selected valid articles through purposive sampling. The final dataset

included 149 individual articles from the three sources: 50 from CNN, 31 from Fox News, and 68 from *The New York Times*. The material consisted of news articles, opinion pieces and editorials, as well as transcripts of cable television news segments. While opinion pieces by the news providers were included, I chose to omit letters to the editor, or other such writings that did not represent the voice of the news provider. Furthermore, the study did not include any type of visual analysis; only written material was analyzed.

The analysis was based on a mixed approach, a combination of inductive and deductive strategies, in which the research was primarily driven by the data. However, the data was analyzed with the theoretical and normative frameworks (presented in chapter 2 of this thesis) in mind, which guided the formation of emerging frames. Van Gorp (2010) notes that in framing research a deductive strategy is commonly used, meaning that the empirical goal of the research is to test a pre-defined set of frames and their effects. However, inductive, data-driven research can better answer to questions such as “Where do the frames emerge from?” and “How are they observed?” (Van Gorp, 2010, p 10). Moreover, the scope of my study was guided by the research questions, which were:

Primary research question: How is responsibility for taking action on climate change framed in the American media?

Sub-question 1: What solutions and efforts are offered in the media to fight climate change?

Sub-question 2: What actors are called for/to action?

As demonstrated by the arrangement of the research questions, the analysis focused primarily on notions of responsibility. Moreover, to further develop a sense of what type of responsibility was insinuated, the sub-questions aimed at elaborating the suggested approaches of taking action. Furthermore, to identify frames in which either collective or individual responsibility was implied, the second sub-question aimed at looking who was deemed responsible by identifying what actors were called to action and on what grounds. Throughout the analysis, I kept these research questions close by, making sure that I would not overstep the scope of the study in my analysis.

Altheide and Schneider (2013) argue that coding is not a primary goal in qualitative analysis; rather, through an interaction with the documents, the aim of qualitative analysis “is to understand the process, to see the process in the types and meanings of the documents under investigation, and to be able to associate the documents with conceptual and theoretical issues” (p. 70). Coding can,

however, help with this process (Altheide & Schneider, 2013). Personally, I found that coding via ATLAS.ti was helpful in categorizing and understanding the implications of the material. Moreover, the software helped me to connect the codes that I had created and generate networks of co-existing codes.

Altheide and Schneider (2013) argue that frames (as well as themes and discourses) relate to “communication formats,” which pertain to “the selection, organization, and presentation of information” (p. 50). Themes and frames are related, and a theme can be considered a “mini-frame,” (Altheide & Schneider, 2013, p. 52) providing common descriptions or explanatory frames. Conversely, a frame can be considered a “super theme” (Altheide & Schneider, 2013, p. 53).

After the reading and coding, I began to identify recurring patterns in the texts. Particularly, I focused on identifying dominant themes and how they were emphasized. Following Entman’s (1993) conceptualization of framing, I sought to identify what issues or events were portrayed as problems that demanded to be fixed. This also included looking at the causes, judgements, and solutions that were offered, as Entman (1993) notes. Particularly, these three notions helped identify where impressions of responsibility were present. Moreover, I looked at the style of reference, language, and what actors were deemed the “villains” or the “heroes” of the story. This also entailed looking at who was given the voice of an “expert” concerning climate-related issues and who was being spoken to.

More specifically, the process of identifying the frames entailed repeated and systematic readings of the collected articles. Particularly, I looked at their headlines, which often revealed a certain emphasis on an issue, or evaluated what issues and topics were presented in the beginning of the articles in contrast to what was left to the end. In some cases, what (information) was left out was more relevant than what was presented. As Entman (1993) notes, frames are often defined by the information that they omit, not just by what is included.

3.4 Validity and Reliability of the Research

Before moving to the analysis, I will briefly comment on the validity and reliability of this research. In any type of scientific research, justifying the validity of the research and reliability of the methods is generally essential. Bryman (2001) describes validity as “the integrity of conclusions

derived from research” (p. 30) and reliability as “the degree to which a measure of a concept is stable” (p. 507).

Following the academic separation of qualitative and quantitative research methods, practitioners of quantitative approaches have at times argued that qualitative content analysis is “impossibly subjective” (Deacon et al., 2010, p. 138). Deacon et al. (2010) refute this criticism, however, arguing that infinite objectivity is in fact an illusion. Furthermore, Deacon et al. (2010) posit that as it is a methodological approach, qualitative analysis is often suitable for studying media content, and its methodological grounds ensure “a reasonable degree of reliability” (p. 139).

To ensure the validity and reliability of this research, I took several steps throughout the data collection and analysis phases. Firstly, all the data collected was public and accessed through the news providers’ official websites, using the search functions available on each site. This ensured that the study could be replicated using the same techniques of data collection and analysis, which I have described in this chapter. Secondly, when collecting the data, I chose not to include any letters to the editor that popped up in the initial keyword search. The rationale for this was simply to ensure that the results of the analysis represented the tone of the news provider, and not the tone of its readers. Thirdly, for a comparative study, I selected three news sources based on their popularity and perceived political bias. To ensure that those factors were not subjective, I utilized available (online) data to evaluate their popularity and political bias.

Lastly, the individual practices of the researcher are highly critical and affect the validity of the research. Moreover, this means that as a researcher delving into qualitative analysis, one ought not be guided by the pre-existing biases and suppositions one might have toward the study or the data. As Deacon et al. (2010) note, however, this does not imply that research should be done in a vacuum without any personal biases or ideas; rather, researchers ought to be attentive toward their own biases and ensure a systematical approach to the study. To guarantee this, I approached the study in a well-structured manner. Moreover, in this chapter, I have aimed at providing detailed accounts of how I conducted the study to ensure the validity of my analysis.

To conclude this section, it ought to be mentioned that due to the scope of the thesis, the selected data was limited to the three sources and the timeframe chosen. Arguably, had the scope of the study allowed it, a more extensive study beyond the timeframe of one calendar month or across more news providers could have yielded more vigorous results.

4 ANALYZING RESPONSIBILITY FOR CLIMATE CHANGE

In this chapter, I present the results of my analysis, which focused on how responsibility for climate change action was framed in the American media, following the primary research question. The analysis was further approached through the sub-questions concerning more specifically what actors were called to action on climate change and what the proposed solutions or efforts to mitigate climate change were. The qualitative analysis of the news media content was conducted through frame analysis, as explained in the previous chapter, in which I identified predominant frames in the news. This approach led to the emergence of four different frames.

4.1 Responsibility for Climate Change Action

The primary research question posited that different frames of responsibility are present in the news coverage of climate change. This question aimed at identifying whether frames of responsibility were used to incite collective efforts of mitigation, or whether the responsibility to take action was applied to the individual. Moreover, I was interested in finding out whether treatment responsibility following Young's social connection model was implemented. However, already in my initial analysis, I noticed that responsibility was rarely directly discussed in the news media. Rather, it was indirectly present in the news framing of what actions or efforts were encouraged.

Through the application of my secondary research questions, I approached the issue of responsibility by identifying patterns of who was called to action, and what sort of solutions or efforts for fighting climate change were proposed in the media. Moreover, the aim of the analysis was to identify whether climate change action was seen as a collective endeavor, or whether individual action was emphasized. Through this approach, my analysis resulted in identifying four key frames that incorporated the issue of responsibility for climate change action. The four identified frames are the "Young Activists," "Blame Game," "Consumer Efforts," and "Corporate Efforts" frames.

4.1.1 Young Activists Frame

The Young Activists frame was predominant in all the three news sources, potentially due to the increased attention to youth-led activism in the past two years. This frame emphasized the youth's

efforts for fighting climate change, primarily through collective action. Moreover, the call to action in this frame was directed at political leaders, governments, and international decision-makers.

The Young Activists frame was most commonly depicted through (or in connection to) Greta Thunberg, the then-16-year-old Swedish national who has gained world-wide recognition as an icon for the current youth movement against climate change. At 15, Thunberg began to skip school in order to sit outside of the Swedish Parliament, protesting climate change. So began her *Skolstrejk för klimatet* (School Strike for Climate), followed by the world-wide *Fridays for Future* movement of school strikes for the sake of the climate.

The Young Activists frame portrayed Thunberg not only as the icon of the youth movement, but also as a heroine in the face of inactive global political leaders. Moreover, following what was discussed in section 2.2.1 of this thesis, Thunberg can be seen as a young “eco-celebrity,” with strong mobilizing power. In the Young Activists frame, when describing her, words such as “courageous,” “dynamic,” “seemingly tireless,” and “inspiring” were used. Moreover, in this frame, she was often presented in comparison with political leaders, such as the U.S. president Donald Trump, and Jair Bolsonaro, the President of Brazil, whose anti-climate decisions and lack of efforts for climate change mitigation Thunberg has determinedly criticized. Furthermore, the analysis showed that this confrontation was heightened during the news coverage in early to mid-December, when the American magazine *Time* announced that Thunberg had been named the Person of the Year for 2019. Her winning of the award was commonly depicted through President Trump’s disapproval of the decision, namely his mockery of the 16-year-old.

Calls to action directed at national governments and the international community were emphasized in the Young Activists frame. The frame employed this emphasis through coverage of scientific reports on the increasing emission rates and Thunberg’s criticism of failed government action. Despite the lack of efforts, in this frame, climate change mitigation was depicted as a collective responsibility, with specific nations rarely singled out:

“Why, after all, has the world failed to take action on climate, and why is it still failing to act even as the danger gets ever more obvious? There are, of course, many culprits; action was never going to be easy.” (NYT, December 13, 2019)

Moreover, this collective international responsibility was highlighted in the news coverage of global climate summits. Urgency to take action was insinuated in this context. Notably, the 25th United Nations Climate Change Conference (“Conference of Parties,” or “COP25”), which took place in Madrid in December 2019, was deemed “‘the point of no return’ in the climate emergency” and “the make or break,” prior to the event. Consequently, after the Conference, the resulting lackluster resolutions were judged as a “lost opportunity” with “few commitments.” Overall, the tone of news reporting of COP25 was underwhelming.

In addition to calls to governments and to the international community, the frame emphasized the responsibility of older generations to repair their damage to the environment. Arguably, this antagonism between the older and the younger generations was at the core of the Young Activists frame. In this frame, adamant activism by the youth and their hopefulness was contrasted with the older generations’ inability to take action:

“They are calling on older generations to act now to reverse climate change — because it is their futures at stake. Because of these younger generations, there is hope.” (CNN, December 5, 2019)

“One finalist described his image from a climate change march this way: ‘We are tired of our elders running into dead ends when it comes to change, so we have taken it upon ourselves to be the force behind a movement.’” (NYT, December 5, 2019)

The Young Activists frame highlighted the disproportional effects climate change will have on younger generations. While causal responsibility was thus applied to older generations, it ought to be noted that, overall, the Young Activists frame emphasized the importance of collective action to treat the issue of climate change. This follows Young’s (2011) notion of the social connection model (as discussed in chapter 2.3 of this thesis), which posits that responsibility for taking action is not isolating; the responsibility of a single culprit does not lessen the responsibility of all that take part in maintaining the unjust structures.

In terms of individual action, this frame accentuated efforts taken by Greta Thunberg to reduce her own carbon footprint. However, this emphasis was secondary to the stress that was given to her efforts as an awareness-raising activist, climate spokesperson, and youth protest organizer for

global action. Thunberg's personal decision to stop flying was notably accentuated during the reporting of the Madrid COP25 conference.

Interestingly, activism in general, as a type of direct action, was most commonly depicted in connection to youth protests and climate marches organized by the youth. Following the massive months-long bushfires that ravaged the country in 2019, activism in Australia was frequently discussed in the context of climate change. Activism in the United States, however, was rarely discussed outside of the Young Activist frame, specifically without the context of the youth activism.

However, in the context of the United States, one celebrity activist was frequently mentioned across all the news sources. The 82-year-old actress Jane Fonda was repeatedly depicted as an adamant activist, attending climate rallies, who got her inspiration from Greta Thunberg. Furthermore, she was positioned as an adult who joined the youth-led protests. For example, *The New York Times* article on December 28, 2019 remarked:

“The weekly protest against congressional inaction on climate change began 12 weeks ago, billed as something of an adult “atta girl” celebrity cheering section for the youth climate strikes of Greta Thunberg. Ms. Fonda was told that Congress is rarely in session on Friday afternoons, but she stuck to the schedule because throughout the world, youth climate actions are also on Fridays.”

Arguably, like Thunberg, Fonda emerged as a type of eco-celebrity in this frame.

While the Young Activist frame was identifiable in all the three news sources from which the material for the study was gathered, it was most prevalent in articles collected from *The New York Times* and CNN. Notably, Thunberg was discussed across all the three news sources, but the youth activist movement and the call to older generations were more prevalent in *The New York Times* and CNN. As mentioned earlier, the prevalence of this frame may be explained by the amplified attention to the youth climate movement for the last two years. Arguably, Thunberg has become a household name within the news coverage of climate change, taking the role of an eco-celebrity.

As discussed earlier, causal responsibility for treating climate change within this frame was applied to older generations; however, such responsibility was not deemed isolating, concerning only the

older generations, but rather collective action was implied. Thus, it does not match the description of backward-looking liability, in which the culprit would be held solely responsible. Rather, it is a question of being part of the norms that hold together the societal injustice that maintain climate change. Furthermore, when evaluating this frame in the light of Young's model of social connection, it can be argued to possess the features of the said model. More specifically, the Young Activists frame is primarily forward-looking, supposes a shared responsibility, and encourages collective action in and outside of the government policy.

The Young Activists frame emphasized youth activism as a potent tool for persuading the international community and political leaders to take action for climate change mitigation. Thus, direct action was seen as a means of achieving global collective action. In this frame, individual responsibility was not prominent; instead, responsibility was deemed collective and the call to action was directed at political leaders and decision-makers across the globe as a whole.

4.1.2 Blame Game Frame

The Blame Game frame was far less prevalent than the Young Activists frame. Nonetheless, it stood out from the data as a separate, conflicting frame. Across the three news sources, this frame was notable solely in the data collected from Fox News Channel. Unlike the Young Activists frame, the Blame Game did not incite collective responsibility to treat the issue of climate change. At the core of this frame was the antagonism between the United States and some Asian countries as the leading global emitters of greenhouse gases. In this frame, responsibility for action was applied to those actors that were deemed the most pollutant. The name of this frame emerged from this inclination to cast blame upon other nations while downplaying the accountability of the United States.

In this frame, the main villains were China and India, although Asia, as a collective entity, was named culpable as well. The singling out of individual nations as accountable insinuated causal responsibility for treating the issue of climate change. Moreover, it emphasized the position that efforts to keep emissions from rising rested on the shoulders of China and India, specifically. Thus, the frame posited that responsibility to mitigate was not collective or shared. In a Fox News (December 20, 2019) interview, Secretary of the U.S. Department of Energy, Dan Brouillette was quoted saying: *"I think the real issue here is what China is doing and what India is doing."* Brouillette was sworn in as the Secretary of Energy in December 2019, after being nominated by

President Trump in November 2019. Similarly to President Trump, Secretary Brouillette is in favor of making the United States energy independent, and furthermore, energy dominant (Center on Global Energy Policy, n.d.).

Moreover, in one article, the confrontation between the United States and China went as far as to suggest a war against China. This call to action was offered while simultaneously questioning if climate change posed an existential threat, as often argued by the progressive Democrats:

“War with China, then, is an absolutely essential component of addressing the climate crisis if, indeed, it is existential. We cannot stand by and their actions contribute to the death of all humanity.” (Fox, December 23, 2019)

The ultimatum of a war was posed as an alternative to the Green New Deal, a Democratic-led policy initiative, which aims to achieve net-zero greenhouse gas emissions through 10-year national mobilization efforts (H. Res. 109, 2019). It was suggested that a military war against China ought to take place, after which it was concluded that a trade war at minimum would be grounded.

In addition to the antagonism between Asian nations and the United States, another confrontation was identifiable in this frame: the partisan divide on the issue of climate change between the Democrats and the Republicans. The frame depicted the policies of Democratic leaders as ineffective and downright harmful to the citizens of the United States:

“The real mission of the Democratic candidates, and most environmental leftists, is this: punish Americans. Even though climate change is a global problem, and China is the leading cause, we will eliminate freedoms, reduce market choices, curtail prosperity, and most egregiously, destroy jobs. Americans must suffer because China pollutes.” (Fox, December 23, 2019)

“If Americans were to do exactly what Green New Deal supporters have called for – committing economic suicide in the process – increased carbon dioxide emissions in growing countries like China and India will push total emissions well beyond their current levels. This is because less than 5 percent of the world’s population lives in the United States.” (Fox, December 28, 2019)

Through the use of such words and phrases as “punish Americans,” “eliminate freedoms,” and “committing economic suicide,” fear was employed as an emphatic and emotional tool to influence the reader’s opinion within this frame. Furthermore, it depicted climate change as an economic issue, rather than as an issue of health and wellbeing of the Americans.

As a theme within the frame, an overall apathy toward action stood out from the data:

“First, even if you believe humans are entirely responsible for climate change – and there are many scientists who say we aren’t – nothing we do in the United States will stop global carbon dioxide emissions from rising in the coming decades.” (Fox, December 28, 2019)

The frame insinuated that American efforts to mitigate climate change would not be impactful, and also upheld the thought that climate change was happening “elsewhere,” or at least that its effects did not concern the majority of Americans. By singling out the Democratic-led efforts and proposals to lessen climate change, namely the Green New Deal, the frame alluded that such actions would be more harmful to the United States and its citizens than the outcomes of climate change.

Also evident in the latter excerpt from the Fox News article (from December 28, 2019) was skepticism toward anthropogenic climate change. The Blame Game frame was the only frame that I identified, in which the scientific consensus on human-caused climate change was contested. Moreover, the existence of global warming was questioned on the basis of “cold snaps” in weather. No scientific context or reasoning for such claims were given in this frame.

The Blame Game frame highlighted the importance of India and China, as big polluting nations, to take action and reduce emissions, while neglecting the fact that the United States is the second biggest carbon dioxide emitter, followed by the European Union (Friedrich, Ge & Pickens, 2017). Moreover, when considering total contributions to emissions, the United States emitted 29% of the cumulative carbon dioxide emissions between 1751 and 2017, making it the world’s biggest historical polluter, whereas China and India emitted 12.7% and 3%, respectively (Ritchie & Roser, 2019).

It ought to be noted that the Blame Game frame was identifiable only in one of the three news sources, Fox News. Arguably, this detail speaks of the partisan polarization concerning climate

change and the consequent polarization in the media. Of the three news sources in this study, Fox News is the most conservative, as described earlier in the methodology chapter in section 3.2. Moreover, following Nisbet's typology of climate-change-related frames (as presented in section 2.2.2), the Blame Game frame depicted both the scientific uncertainty and economic consequences frames. Nisbet (2009) notes that the scientific uncertainty and economic consequences frames have been commonly utilized by the Republicans. While Fox News is not officially affiliated with the Republican party, its conservative bias arguably resonates with this finding. Additionally, also the morality and effects frame by Nisbet (2009) was identifiable in the Blame Game frame. Most notably, it stood out from insinuation that a war with China was grounded in order to protect not only the Americans, but "all humanity."

Based on the analysis, the Blame Game frame did not depict the social connection model of responsibility. Young's (2011) notion of shared responsibility in the social connection model stems from a shift in focus from finding the culprits to cultivating communal action. However, the Blame Game frame employed a backward-looking, liability-endorsing approach, in which the issue of climate change could only be fixed if the biggest culprits were held liable for the harm they have caused. Thus, the Blame Game frame endorsed a high notion of causal responsibility toward China and India. Interestingly, in this frame, the liability was not deemed to concern the United States, despite the fact that it is historically one of the biggest greenhouse gas emitting nations. Furthermore, the Blame Game frame did not incite collective responsibility towards climate change mitigation. In fact, practical solutions or concrete efforts were not mentioned at all.

4.1.3 Consumer Efforts Frame

Initially, prior to my analysis, I had assumed that a strong frame emphasizing personal action for climate change mitigation would emerge. However, less emphasis overall was given to what efforts an individual can make to alleviate climate change. Nonetheless, a frame that I have named as Consumer Efforts stood out from the data, although less prominently than expected. This frame highlighted the impact of personal consumer decisions toward climate change mitigation. Thus, this frame was highly individualistic, focusing on efforts that an individual can make through sustainable consumer practices.

Unlike the two formerly introduced frames, this frame did not predominantly emphasize the call to action directed at governments or the international community. Rather, emphasis was given to what

efforts an individual can make in his or her personal life. The call for individual action was implied through word choices, in which “you,” as the reader, were encouraged to take action through personal day-to-day practices or consumer choices. Consequently, this frame often accentuated the practicability of such actions. A more unified action was implied through the employment of “we,” as in “we must.” However, as the plural noun was predominantly used in context with consumer choices, this call to action did not incite that type of collective *political* action that Young’s (2011) model of responsibility entails.

At the core of the Consumer Efforts frame were efforts to reduce one’s carbon footprint. Several articles discussed transportation as a cause for increased emissions. Readers were then given practical examples on how to travel more “greenly.” A CNN Travel article from December 2, 2019 flaunted in its headline: “*Green travel tips: How to see the planet without destroying it.*” A *New York Times* article, “*Dispatch From the Land of Flight Shaming, or How I Became a Train Boaster*” (December 18, 2019), written in first-person, boasted the comfortability and excitement of traveling across Europe by train instead of flying.

In terms of energy-consumption, the use of sustainable products, such as LED lights, was encouraged also for practical reasons. Such practical reasons were, for instance, to save money or to make little “life hacks” to improve the efficiency of one’s life, as in this example:

“The biggest thing you can do is to switch to LED lights. If you do, you’ll use up to 70 percent less energy than you would with traditional incandescent bulbs. Plus, you won’t need to replace lights as often. LEDs last about 10 times longer.” (NYT, December 4, 2019)

Furthermore, the effort of turning lights and electronic appliances off when not in use was reinforced as an easy way to limit burning of fossil fuels. “Change the way other things in your life do nothing,” an article by *The New York Times* (December 31, 2019) advertised, while encouraging turning appliances off instead of leaving them on stand-by. As such, making more sustainable consumer choices was portrayed as an ultimately effortless act.

Another suggestion for reducing one’s carbon footprint was through diet. Several articles encouraged either limiting or stopping the consumption of meat and dairy, without sacrificing the taste, thus highlighting the ease of such a dietary shift:

“Reducing your meat and dairy intake can help mitigate climate change. Melissa Clark has ideas for how to do it deliciously.” (NYT, December 31, 2019)

“As farmers grapple with climate change and consumers grow increasingly concerned about the environmental impact of what they eat, restaurants and food producers are doubling down on earth-friendly ingredients and practices. Vegan dishes and meat alternatives will show up on more menus, both fine-dining and fast-food.” (NYT, December 30, 2019)

“But by speaking to millions of people, and by tapping in to a broader discourse that has already mobilized Extinction Rebellion and fostered an increase in Google searches for the word vegan, Wilks has hit us where we feel it most -- in our stomachs.” (CNN, December 19, 2019)

The vegan or plant-based diet was often discussed from the angle of which political or public figures had made the switch, such as Greta Thunberg, former Governor of California Arnold Schwarzenegger, and former Vice President Al Gore.

In the Consumer Efforts frame, little emphasis was given directly on the matter of purchasing consumer goods. In fact, excessive consumerism was not challenged, and the act of buying less was not discussed as a potential way to limit one’s carbon footprint. On the other hand, recycling was suggested in the context of holiday decorations and gift wrapping, but rarely enforced in the context of day-to-day life, outside of the holiday context. Several Christmas gift guides emphasized sustainable options for gift-giving, naming such options as “guilt-free” or “gifts that give back,” thus highlighting the “feel good” factor of such personal decisions.

In the Consumer Efforts frame, responsibility for climate change mitigation was not directly discussed or emphasized. It was, however, insinuated through the discussion of personal action to reduce one’s carbon footprint. As such, the frame employed a model of treatment responsibility, rather than causal responsibility, to approach the issue of climate change. Thus, the frame insinuated a forward-looking approach. These notions imply that, in this frame, individual action for climate change mitigation was seen as a question of morality, influenced by a consumer’s personal values on sustainability.

While the Consumer Efforts frame emphasized a forward-looking approach, it did not incite direct collective action as per the social connection model. This frame was highly individualistic, emphasizing the feasibility and accessibility of making individual decisions concerning climate change mitigation. It did not provoke taking action toward any specific community, social or political, as a whole. A shared responsibility was only insisted through the use of such phrases as “we must.” Even then, it did not provoke any political responsibility for taking action. In other words, the depicted consumer actions did not strive to dismantle the unjust structures that maintain climate change. As this frame did not employ any sense of activism, but rather viewed taking action as a consumerist choice, it did not enforce collective measures toward mitigation.

In terms of its prevalence, the Consumer Efforts frame was most commonly identified in the data collected from *The New York Times* and CNN. Thus, it could be argued that individual effort toward climate change mitigation is primarily enforced by the liberal media. It ought to be noted, however, that considering the limited data from only three news sources, a more thorough study encompassing a wider array of both liberal and conservative news sources would be required to fully analyze this claim.

4.1.4 Corporate Efforts Frame

Lastly, a frame that I have named “Corporate Efforts” stood out from the data. Overall, this frame was less prevalent than the other three frames. At the core of this frame was the responsibility of corporations to take action for climate change mitigation. The frame incited taking action toward climate change mitigation by allocating the responsibility of drastic changes to the most polluting fossil fuel industries. In terms of suggested efforts, this frame employed a dual approach: calls to reduce emissions and encouragement of new green innovations.

Primarily, the frame encouraged rapid changes within high-emitting sectors. These changes were deemed necessary, but also radical. Urgency to take action was specifically put to energy, transportation, and industry sectors:

“But reducing greenhouse gas emissions to fight climate change will require drastic measures, Dr. Taalas [Secretary General of the World Meteorological Organization]

said. "The only solution is to get rid of fossil fuels in power production, industry and transportation," he said." (NYT, December 4, 2019)

"Reducing emissions, particularly from transport and a faster transition to green energy is crucial to get emissions under control and save thousands of lives from pollution, said Jackson, the chair of the Global Carbon Project. "We have to stay optimistic and stay focused on reducing emissions every year that goes by and make those temperature targets less likely." (CNN, December 4, 2019)

While urgency and force were implied, practical accounts of how to reduce emissions and switch from fossil fuels to green energy were not discussed in greater detail.

Particularly large oil and gas companies such as ExxonMobil were named as culprits for the high emissions with the industry. In December 2019 (when the data used in this study was published) ExxonMobil won a legal case against the state of New York. The lawsuit had claimed that the company had misled its investors regarding the impact of climate change regulations on its business. Naturally, due to this court decision, the company was discussed in the media more frequently during this time period. Of other major energy corporations, Chevron and BP were also mentioned in the context of climate change, although not as frequently as ExxonMobil.

While the call to corporations applied a notion of causal responsibility toward fossil fuel industries, collective efforts that would go beyond the efforts of the industry were also demanded. Moreover, these efforts were seen as complementing each other:

"When it comes to sustaining the vital symbiosis between the economic and the natural world, we all can do more — much more. The private sector can stop supporting or subsidizing industries and activities that damage the planet and instead invest in sustainable development. Governments can roll out policies to fight climate change and the destruction of nature, for example, through promotion of clean-technology research and development." (CNN, December 5, 2019)

The frame implied that while the core responsibility to act rested on the shoulders of the high-emitting fossil-fuel sectors, collective efforts would be required to mitigate climate change effectively. This notion hinted at the complexity of the issue, requiring large-scale efforts.

Government regulations were deemed necessary to address high greenhouse gas emission rates. The efforts of “the private sector” were similarly encouraged here, insinuating that the market forces play a vital role in confronting climate change. Moreover, through the use of “we,” as in “we all can do more,” the frame emphasized the power of collective action.

The Corporate Efforts frame presented a two-fold approach to fighting climate change, of which the first highlighted the causal responsibility of energy and transportation industries in the United States. The second approach emphasized the potential of new sustainable innovations as profitable tools for climate change mitigation. Moreover, this included the overall encouragement of green energy to produce new sustainable ways of being energy efficient. The second approach encapsulated Zehr’s (2009) notion of a hybrid frame (as discussed in section 2.2.2), which combined the economic and environmental aspects of climate change.

As Zehr (2009) notes, in the hybrid frame, reductions to greenhouse gas emissions are presented as business opportunities. This opportunistic tone was notable in the Corporate Efforts frame. While pushing for sustainable business models, this frame emphasized the potential economic opportunities that new innovations could bring. The frame observed the potential upcoming shifts in the green market, and also encouraged investors to begin making the move to greener assets:

“But there are also opportunities for investors. Companies that adapt to changing policies would see their combined share prices increase by hundreds of billions of dollars, according to the UN-backed group.” (CNN, December 9, 2019)

“Carmakers that shift to electric vehicles and utilities with a strategy for greener alternatives could more [than] double their valuations, according to Fiona Reynolds, CEO of the Principles for Responsible Investment. Similarly, producers of solar and wind energy equipment will also likely go up in value as demand increases.” (CNN, December 9, 2019)

As such, the possibilities of new green markets were presented as a sort of win-win situation for both the investors and corporations within manufacturing and energy industries.

To highlight the potential of innovations, new sustainable inventions were specifically named and praised for their efforts, as in this Fox News example:

“Take, for example, Cross-Laminated Timber (CLT). It’s a clean building product that proves innovation is how we can combat climate change, grow the economy, and raise our standard of living. It emits fewer emissions to manufacture than other tall building products and acts as a carbon-capture product.” (Fox, December 10, 2019)

In addition to this example from Fox News, the Corporate Effort frame similarly depicted several efforts, or innovations, that had been already established in heavy-emitting industries. One article (NYT, December 4, 2019) discussed the implementation of cargo bikes (in place of trucks or vans) in New York, as part of a city program that online retailers such as Amazon take part in. Another article (CNN, December 16, 2019) introduced Reebok’s new design for a vegan running shoe. A CNN article from December 6, 2019 highlighted LinkedIn as a leader in eco-friendly constructing with praises of its new campus that was built using emission-trapping concrete, which was provided by a startup named CarbonCure.

These examples established a notion that reductions in emissions could be done in different ways and in different sectors. Moreover, they established a sense of hopefulness that new innovative ways of constructing, for example, were already being implemented. By lifting up these singular examples of eco-friendly innovations, the articles produced lead-by-example stories. However, it could be argued that the articles worked as marketing opportunities for the new innovations, which could lead to more consumption than mitigative efforts.

In his study of the hybrid frame, Zehr (2009) identifies coalitions that have formed between business and environmental leaders “to illustrate the convergence of actions to reduce greenhouse gas emissions and economic activity” (p. 89). This convergence was notable in also in the Corporate Efforts frame, especially in the articles concerning eco-innovations adopted by corporations. While the articles boasted the environmental impacts of such innovations, it was also evident that shifts in business models were encouraged by the economic, profit-making potential of new markets. For example, the CNN (December 16, 2019) article of the vegan sneakers discussed the shoes as the “new craze” and noted that market leaders, such as Reebok, Adidas, and Nike, were fighting for their share in the soon-to-be booming plant-based sneaker market. This led to question whether the incentives for the new market were more economical and profit-based rather than environment-oriented.

Moreover, in the CNN (December 6, 2019) article concerning LinkedIn's new eco-friendly campus, it was noted that in various tech companies the pressure to take action against climate change has increased. It was highlighted that several tech corporations are facing increased internal pressure from their employees to make more intense efforts against climate change. This notion portrayed the employees as the active party, uniting in protest against their employers' inaction. As such, the frame insinuated that tech corporations had the same responsibility as everyone and every industry to take collective action against climate change.

Overall, the Corporate Efforts frame was interesting, in the sense that it portrayed notions of both causal and treatment responsibility. Causal responsibility was notably casted onto fossil fuel corporations, especially within the energy industry. To highlight the responsibility of corporations within the energy industry, several corporations were named. Particularly, ExxonMobil was predominantly mentioned and discussed, and thus framed as the culprit. However, the frame also emphasized a strong collective force in climate change mitigation by urging multi-sector efforts with the help of the government.

Simultaneously, the convergence of the economic and environmental aspects resulted in hybridization of the frame, which led to notions of treatment responsibility. The approach here was different, as taking action was insinuated through the discussion of efforts that had already been made within different industries. This "leading by example" approach was emphasized by naming eco-friendly innovations and products or efforts to reduce greenhouse gas emissions. Moreover, corporations that had already made an effort were mentioned in a rather praising tone. The power of employee activism was emphasized by accounting how employees of technology companies have called out their employers for the lack of action toward climate change mitigation.

As such, the Corporate Efforts frame did not hold strong notions of individual responsibility. Furthermore, to apply Young's social connection model, the Corporate Efforts frame asserted a forward-looking approach through the encouragement of shared action. This entailed taking action within politics and the private sector.

Overall, the Consumer Efforts frame was the least prevalent frame. Yet, it was present in all the three news media outlets included in the study. It ought to be noted, however, that its prevalence in Fox News was limited to only one article.

4.2 Summary of the Analysis

Before moving to the discussion, I will briefly conclude this chapter by summarizing the results. This includes drawing further comparisons between the emerging frames. I have summarized the key aspects of the four frames in Table 2 below.

Table 2: Summary of the four emerging frames of responsibility

	<i>Young Activists</i>	<i>Blame Game</i>	<i>Consumer Effort</i>	<i>Corporate Effort</i>
What type of action is (primarily) encouraged?	(Activism leading to) national and international policy changes	Emission reduction in Asia	Consumer action leading to smaller greenhouse gas footprint	Emission reduction; new innovations
Who is deemed responsible to take action?	Older generations; political leaders & decision-makers	High-polluting Asian nations: China, India	Individuals as consumers	Fossil-fuel industries
What type of responsibility?	Treatment responsibility	Causal responsibility	Treatment responsibility	Causal responsibility, treatment responsibility
Does Young's social connection model apply?	Yes	No	No	Yes, partly
Mostly present in which news source(s)?	CNN, NYT, Fox	Fox	CNN, NYT	CNN, NYT, (Fox)

The analysis resulted in identifying four different frames, which approached the issue of responsibility for action on climate change from different angles. Whereas the Blame Game frame insisted that the responsibility to take action rested primarily on China and India, the Corporate Effort frame posited that corporations in the United States were responsible to take action. These two frames appeared to contradict each other, as the Blame Game frame did not incite blame toward corporations in the United States and the Corporate Efforts frame did not discuss the responsibility of Asian nations.

The Consumer Effort frame stood out as the only frame that incited highly individualistic responsibility. This frame encouraged sustainable decisions and practices on a personal level, thus demonstrating that small changes in everyday practices could help alleviate climate change. While the frame was forward-looking, it did not incite any political responsibility that would bring about changing the social structures. Thus, its approach to responsibility did not capture Young's (2011) social connection model. Similarly, the Blame Game frame lacked a sense of collective responsibility, but rather insisted causal responsibility toward China and India, which is why the model did not apply to it.

Arguably, the model was best represented by the Young Activists frame. This frame portrayed activism as a potential tool in persuading national and international policy changes. While it directed responsibility to take action toward the older generations, it deemed that collective efforts would be needed. Moreover, political leaders within the international community, as well as national leaders, were encouraged to lead action. Through the implementation of treatment responsibility, the frame insisted a forward-looking approach to climate change mitigation. Overall, political responsibility leading to societal and structural change was urged.

The Corporate Effort frame also partly exemplified the social connection model by Young. While causal responsibility for the high-polluting sectors was implied, overall, it was argued that responsibility was shared and required taking action beyond the private sector. Through hybridization, the frame encapsulated the environmental and economic aspects of climate change and presented it as an economic opportunity. This was done via stories that illustrated innovative actions toward climate change mitigation within several sectors. This was further emphasized by naming such innovations and products. Thus, the frame incited collective action by demonstrating how emissions could be reduced in various sectors and societal change could be accomplished through shared effort. As such, the approach was mostly forward-looking.

5 DISCUSSION

This thesis aimed at investigating how responsibility for climate change, and particularly action for climate change mitigation, is framed in the media in the United States. In the light of the vast research that recognizes the detrimental damages and long-terms effects climate change will pose, drastic measures to curb greenhouse gas emissions are required (IPCC, 2018). As the consensus of climate scientists contend, climate change is primarily human caused (Cook et al., 2016), and thus limiting anthropogenic carbon dioxide emissions is essential in order to help curb global warming to 1.5 °C, as advised by the IPCC (2018). It is clear that in order to do so, efforts need to be made at all levels: internationally, nationally, and locally. Moreover, such efforts will entail cooperation across all sectors, both private and public. As the media works as the main provider of scientific information for the majority of the public (Nelkin, 1995), continuous and contextualized news coverage of the issue of climate change is essential. The purpose of this thesis was to examine how responsibility for climate change action is framed in the media, and particularly, whether the responsibility is deemed collective or personal.

This examination of responsibility was addressed with the main research question, which asked: *How is responsibility for taking action on climate change framed in the American media?* Through a qualitative study, using a method of frame analysis, this thesis identified different frames through which the issue of responsibility is discussed in the U.S. media. It is somewhat surprising, however, that the study found that responsibility was rarely discussed directly. Rather, responsibility was generally alluded indirectly through proposed actions and efforts. A possible explanation for this may be that discussing responsibility without prevarication is not considered newsworthy. Moreover, it involves contextual, comprehensive analysis that may not be of interest to many news consumers. As Iyengar (1991) notes, issues that are framed thematically tend not to get reported by the news.

Overall, the study found that notions of both collective and individual responsibility are present in the news coverage of climate change. Furthermore, as the emergence of four comparably different frames conveys, the media approaches the issue of responsibility from various angles.

When analyzing responsibility, in this study, I was also interested in examining whether the social connection model by Iris Marion Young (2011) would emerge from the media framing of responsibility. As discussed in chapter 2 of this thesis, Young's model presents a normative

framework for approaching responsibility for structural injustice, which makes it an applicable model for discussing responsibility for climate change action. Investigation of the emerging frames shows that the social connection model is primarily applied in the media framing of the youth protests for climate change. Notably, when discussing the youth protests, the media applies a forward-looking approach that encourages collective efforts through activism and calls out the political leaders and decision-makers. Moreover, even when this frame employs a backward-looking approach when juxtaposing the older generations with the youth, it does so primarily in order to make sense of the existing, unjust structures. This is one of the five features of the social connection model, as Young (2011) proposes.

On the other hand, the study found that the media reiterates notions of blame, particularly concerning the issue of respective emission reductions. This trend of blame-seeking is especially prominent in the news coverage of Fox News, thus indicating that a backward-looking model of responsibility is more apparent in the conservative media. The blame-seeking in the Fox News coverage of climate change is noteworthy, since it casts blame solely upon Asian nations, thus downplaying the responsibility of the United States (and other developed nations) that have historically emitted more than China or India, for example.

To further approach the issue of responsibility, I sought to answer the following sub-questions: (Q1) *What solutions and efforts are offered in the media to fight climate change?* and (Q2) *What actors are called for/to action?* In terms of what efforts were proposed, the study found that reductions in greenhouse gas emissions are suggested through different approaches. The general notion is that the emission reduction ought to happen nationally and globally. In other words, reductions need to be made universally. The call to action is thus mostly presented at political leaders and the international community. This call to action entails treatment responsibility, as Iyengar (1991) calls it. Secondly, a call to action is presented at corporations and industries within high-polluting sectors. Contrarily, this call to action insists causal responsibility, which posits responsibility for the existence of the problem (Iyengar, 1991). It ought to be noted, however, that while emission reductions are insinuated and discussed, practical solutions are not generally examined. Only when discussing what efforts individuals as consumers can make, practical suggestions are given.

Surprisingly, the results of the study indicate that the media's focus on the action-taking of individuals is not as prevalent as expected. However, when discussed, the responsibility of individuals as consumers is highlighted. The study found that this is most prominent in the more

liberal media, which employs a rather practical tone toward reducing one's carbon footprint. In terms of what action is primarily suggested, the study found that sustainable practices are offered as effortless solutions to living a greener life. In this context, accounts of eco-celebrities, encouraging sustainable life choices, are also detectable. While the power of celebrity endorsements as awareness-raising has been acknowledged by previous research, such testimonials can also be used as marketing opportunities (Boykoff, 2011). Arguably, this can lead to more consumption rather than making more sustainable choices, thus actually hindering climate change mitigation (Boykoff, 2011).

Moreover, the danger of celebrity endorsements lies in greenwashing. Attractive and credible celebrities may encourage greenwashing, thus deceiving consumers to believe false claims about a product's eco-friendly aspects (Bhatnagar & Verma, 2019). Traditionally, greenwashing is used by corporations to polish their public images or make pretentious claims about "carbon neutrality" (Boykoff, 2011, p. 14). While it was not the aim of this study to measure greenwashing, interestingly, the analysis found that new sustainable innovations are often discussed in context to climate change. This arguably presents a marketing opportunity for such innovations and products. Moreover, new innovations are commonly discussed as economic opportunities within the new green market, which encapsulates the convergence of economic and environmental interests through a hybrid frame, as Zehr (2009) posits. Intriguingly, the study found that reducing consumerism or adapting buying habits are not discussed at all as propositions to take action on climate change. A possible explanation for this finding might be that consumerism remains entrenched in the values of Americans, and the link between consumption-based emissions and climate change has not yet been widely established.

The findings of the study suggest that politicization of climate change is more common in news reporting by Fox News. In other words, the results imply that climate change is repeatedly framed as a partisan issue by Fox News. Politization of the issue results in less mentions of scientists and more accounts from political figures. In accordance with these results, previous studies have demonstrated similar trends with the increase of politicization (e.g. Trumbo, 1996; Chinn, Hart & Soroka, 2020). Furthermore, Chinn, Hart and Soroka (2020) note that increased politicization can produce further polarization, as public opinion is influenced by opinions of political actors. The findings of this study also suggest that when climate change is politicized and portrayed as a domestic policy issue, as in Fox News, treatment responsibility is not discussed.

Consequently, what Boykoff et al. (2020) identify as “Trump Dump” is present in the findings of this study. When covering climate change, the news media tends to cover issues relating to President Trump, rather than informing of actual developments or stories. In terms of responsibility, however, Trump’s lack of action toward climate change mitigation is repeatedly raised particularly in *The New York Times* and CNN. Arguably, the tendency to cover Trump-related news might be due to the norms within mass media that encourage the selection of newsworthy pieces of news, as Boyce and Lewis (2009) assert.

Furthermore, the findings of the study appear to confirm the results of previous studies concerning the nature of news framing of climate change. They may also provide further insight into how the framing of responsibility converges with the existing news frames of climate change. Particularly, parallels can be drawn with Hart and Feldman’s (2014) study, which found that taking action on climate change is often framed through existing conflicts and power plays. Thus, taking action often receives a negative spin. This finding by Hart and Feldman (2014) is supported in the framing of the youth protests, but also in the coverage by Fox News, where ideological conflicts are connected with the issue of climate change. When discussing the youth protests, the conflict between the activists and the older generations that hold political authority is often emphasized, and consequently, the responsibility of the older generations to take action is insinuated. Conversely, in Fox News, the existence of climate change as an environmental and social issue is ridiculed and rather presented as a power play between the Democrats and Republicans, as well as between the United States and other high-polluting nations. Notably, in this context, treatment responsibility is not discussed. However, causal responsibility is casted particularly upon China and India.

Overall, the findings of this study demonstrate that news framing of responsibility for climate change takes varied forms. The findings indicate that economic values underline the framing of the issue particularly in the conservative media. This framing declines to point out the economic potentials of climate change mitigation, rather focusing on the negative impacts of climate change action. Furthermore, this backward-looking, guilt-seeking approach of responsibility is most likely an attempt to avoid the unavoidable. In other words, in order to tackle climate change and reduce greenhouse gas emissions to the required levels, structural changes within the market and industrial systems would need to be made. Arguably, this would mean the end of the capitalist system (manifested through consumption, endless growth, and exploitation of natural resources) as Americans know it. However, dismantling the system that maintains American hegemony is not on the agenda for President Trump, nor is it supported by the fossil fuel and financial industries.

Similarly, mainstream media has its own interests to maintain anti-regulatory attitudes, as Selby (2019) notes.

On a positive note, the recent wave of youth protests has potentially led to more contextual news framing of climate change responsibility. This contextual framing moves beyond the traditional uncertainty frame and presents climate change as a complex social, political, and economic issue. As the findings of this thesis posit, the framing of the youth protests for climate change takes a more collective stand on climate change mitigation. Through the coverage of the youth protests, the media increasingly employs notions of responsibility that bring forth the structural causes for climate change. Moreover, by covering the issue contextually, the news media contributes to increasing the public knowledge of the complex phenomena of climate change. Arguably, when the issue of climate change is not framed through the traditional impressions of conflict and power plays, but rather regarded through the forward-looking lens of what structures have caused it and how they can be ameliorated, significant efforts can be made towards mitigation.

In the title of this thesis, I asked “Who is going to save the climate?”. Through the deliberation of the social connection model, this thesis posits that the responsibility to act, and ultimately to save the climate, is shared. This means that all individuals, corporations, and nations bear the responsibility to act. After all, as history demonstrates, global crises have been averted by global and national action, enforced through the implementation of new policies.

However, as the findings of this study demonstrate, notions of a shared responsibility are not yet universally recognized. Perhaps, this is explained by the seeming complexity of the issue of climate change and the fact that its most detrimental effects have not yet transpired. Thus, it may seem like a distant issue that does not demand immediate action. Moreover, in democratic societies, politics are often inclined toward a focus on short-termism. Frequently, the myopia hinders long-term policymaking for issues such as climate change.

A glimmer of hope still lingers. Societal attitudes and values are already shifting, as demonstrated by the recent wave of climate marches, joined by millions of people across the world. The voices of the youth are loudly and clearly demanding action and asserting shared responsibility to save the climate. What will it take for the world leaders to echo their sentiments and put them into practice?

“If not now, when?” the youth ask. “If not you, who?”

6 CONCLUSION

This study adopted a multidisciplinary approach for analyzing climate change responsibility. Specifically, this study combined existing literature from media studies and news framing research with notions of responsibility for structural injustice from contemporary political theory. As a result, the study established a framework through which the issue of climate change responsibility was analyzed. Thus, the findings of this study have significance in several fields of study.

This thesis contributes to framing studies of climate change by providing detailed accounts of how responsibility is framed. To my knowledge, at the time of writing this thesis, other qualitative studies analyzing specifically responsibility for climate change have not been conducted. Thus, the contributions of this research expand the understanding of how news framing operates. Within contemporary political theory, the significance of this thesis derives from its application of the social connection model in a practical study. Arguably, the model provides a normative groundwork for approaching responsibility for climate change, and the findings of this study can help ameliorate the model so that it can be put to practice.

The findings of this study also have social and practical implications. The findings reported here suggest that the media coverage of the youth protests against climate change often yield an ideal of collective responsibility and frame the issue of responsibility in a more contextualized setting. Thus, understanding how responsibility is framed by different media outlets can help the cause of climate justice. Ultimately, this information on how frames operate can generate more collective action against climate change.

As in any scientific research, this study also has a set of weaknesses and limitations. Particularly, these limitations and weaknesses concern the methodological approach and data collection of this study.

This study applied a method of frame analysis, which is a qualitative method that is often used in media and communication research. As there exists no clearly defined procedures for how to conduct frame analysis, the approach is often left to the discretion of the researcher. Furthermore, as frame analysis is a highly interpretive activity that relies on the knowledge and skills of the researcher, it is likely that some level of subjectivity affects the results of the analysis. This inevitability of some level of subjectivity in frame analysis has been acknowledged by several

researchers (e.g. Van Gorp, 2010). To ensure the reliability of this study and the analysis, I have described the methodological steps taken in this study as judiciously as possible in the third chapter of this thesis.

While frame analysis is a popular and effective approach to media analysis, it is often employed alongside other approaches. For instance, oftentimes researchers combine frame analysis with some other qualitative method, which can enrich the analytical value of the research. Furthermore, studies that are conducted using a mixed method of both qualitative and quantitative approaches generally yield exciting results. Arguably, one of the limitations of this study is that I have utilized only one method of analysis. Moreover, as this study did not implement any quantitative elements, its results lack in generalizability.

I also acknowledge several weaknesses concerning the selected data. Firstly, the data was collected from online articles that were published during the month of December in 2019. While this allowed for up-to-date analysis of the current stake of the climate change debate, the timeframe was considerably limited. Secondly, while the dataset of 149 articles was generous in terms of its size, it was collected from only three sources of online news providers. Although these sources are highly popular in terms of visits on their websites, they are not representative of the whole media landscape of the United States. Thirdly, the evaluation of possible ideological bias of these three news providers was based on content ratings and the subsequent media chart published by a public-benefit corporation, Ad Fontes Media. While Ad Fontes Media (2020) declares to employ “a rigorous, non-partisan methodology,”³ it is possible that some other analysis would find the chosen sources to possess a different level of bias.

Lastly, the ratings of Ad Fontes Media posit that Fox News skews right in its reporting, whereas CNN appears to skew left and *The New York Times* has more neutral bias. However, CNN and *The Times* appear very close to each other on the Chart. Thus, it is arguable that these news sources are not wholly illustrative of the ideologically divided media landscape in the United States. Furthermore, the Chart indicates that the cable television contents of both CNN and Fox News are more politically divided than their online news content. Nonetheless, considering these limitations in the data, generalizations of the indicated polarization cannot be effectively made.

³ According to the homepage of Ad Fontes Media website, <https://www.adfontesmedia.com/>. Retrieved April 18, 2020.

Considering the limitations of the data used in this study, several suggestions for further research can be drawn. Firstly, this study could benefit from additional quantitative analysis to complement the gaps of qualitative analysis that was conducted in this thesis. Secondly, the timeframe of one month of data could be extended. A more thorough comparative analysis of how the frames have switched over a ten-year period, for instance, could help explain the prevalence and emergence of specific frames over a longer period of time. Thirdly, to gain a wider understanding of the American media landscape, a more extensive study could be conducted by collecting data from more news sources. This could help better grasp the differences between the conservative and liberal media framing of climate change responsibility.

Apart from these suggestions, the study could also be done in a different geographical context. As Boyce and Lewis (2009) note, domestic news coverage of climate change tends to reflect the government's viewpoint of climate change. As this study analyzed responsibility for climate change in the context of the United States, it would be highly interesting to conduct a similar study in some other country. This could provide more knowledge of how the medias in different countries perceive their respective responsibility for climate change mitigation. For instance, it would be interesting to see what news frames of responsibility are employed in countries that have adopted more rigorous policies to mitigate climate change, such as Sweden.

Furthermore, one of the restraints of this qualitative analysis is that it cannot measure the effects that these frames have on public knowledge and perception of responsibility. For instance, does the Young Activists frame produce higher perceptions of collective responsibility than the Blame Game frame? Can the Consumer Efforts frame cause individuals to reconsider their consumer habits? Moreover, can a news frame that enhances collective responsibility lead to more mitigation efforts? To answer these questions, further research using qualitative and quantitative methods would need to be carried out. Nonetheless, answers to these questions could help draft additional measures to demand action on climate change.

With this thesis, my aim is to bring forth the underlining notions of responsibility that exist in the media coverage of climate change in the United States. Thus, I hope that this thesis serves as an inspiration for further research into climate change responsibility. Moreover, acknowledging the looming threat of climate change, my hope is that this thesis has practical influence by insisting on collective action for climate change mitigation, thus contributing to the climate justice movement.

REFERENCES

- Ad Fontes Media. (2020). *Interactive media bias chart 5.0*. Ad Fontes Media.
<https://www.adfontesmedia.com/interactive-media-bias-chart/?v=402f03a963ba>
- Alexander, J. (2013). The case of the green vampire: Eco-celebrity, Twitter and youth engagement. *Celebrity Studies: Special Double Issue: Celebrity Ecologies/The Unearthly David Bowie*, 4(3), 353-368. <https://10.1080/19392397.2013.831625>
- Altheide, D. L., & Scheider, C. J. (2013). *Qualitative media analysis* (2nd ed.). SAGE Publications.
- Anderson, A. (2011). Sources, media, and modes of climate change communication: The role of celebrities. *Wiley Interdisciplinary Reviews: Climate Change*, 2(4), 535-546.
<https://10.1002/wcc.119>
- Anthropocene Working Group. (2019, May 21). *Working group on the 'Anthropocene'*. Subcommission on Quaternary Stratigraphy. <http://quaternary.stratigraphy.org/working-groups/anthropocene/>
- Auhagen, A. E., & Bierhoff, H. (2001). *Responsibility: The many faces of a social phenomenon*. Routledge.
- Bennett, W. L. (1996). An introduction to journalism norms and representations of politics. *Political Communication*, 13(4), 373-384. <https://10.1080/10584609.1996.9963126>
- Bhatnagar, A., & Verma, S. (2019). Celebrity footprint in greenwashing. *International Journal of Research in Engineering, IT and Social Sciences*, 9, 22-37.
- Bolsen, T., & Shapiro, M. A. (2018). The U.S. news media, polarization on climate change, and pathways to effective communication. *Environmental Communication*, 12(2), 149-163.
<https://10.1080/17524032.2017.1397039>

- Boyce, T. & Lewis, J. (2009). Climate change and the media: The scale of the challenge. In T. Boyce & J. Lewis (Eds.), *Climate change and the media* (pp. 3–16). Peter Lang.
- Boykoff, M. T. (2011). *Who speaks for the climate?: Making sense of media reporting on climate change*. Cambridge University Press.
- Boykoff, M. T., & Boykoff, J. M. (2004). *Balance as bias: Global warming and the U.S. prestige press*. <https://10.1016/j.gloenvcha.2003.10.001>
- Boykoff, M. T., & Boykoff, J. M. (2007). *Climate change and journalistic norms: A case-study of U.S. mass-media coverage*. <https://10.1016/j.geoforum.2007.01.008>
- Boykoff, M.T., Goodman, M., & Littler, J. (2010). ‘Charismatic megafauna’: The growing power of celebrities and pop culture in climate change campaigns. *Environment, Politics and Development Working Paper Series, WP, 28*
- Boykoff, M. T., Katzung, J. and Nacu-Schmidt, A. (2020). *A review of media coverage of climate change and global warming in 2019*. Media and Climate Change Observatory, Center for Science and Technology Policy Research, Cooperative Institute for Research in Environmental Sciences, University of Colorado.
- Brereton, P., & Robbins, D. (2016). Claims and frames: How the news media cover climate change. *Teaching Media Quarterly, 4*(3).
- Bryant, J., & Miron, D. (2004). Theory and research in mass communication. *Journal of Communication, 54*(4), 662-704. <https://10.1111/j.1460-2466.2004.tb02650.x>
- Bryman, A. (2001). *Social research methods*. Oxford University Press.

- Bush, G.W. (2001, June 11). *President Bush discusses global climate change* [Press statement]. White House. <https://georgewbush-whitehouse.archives.gov/news/releases/2001/06/20010611-2.html>
- Cable News Network. (2015). *CNN.com celebrates 20 years*. <https://edition.cnn.com/interactive/2015/08/specials/cnn-digital-20/>
- Cable News Network. (2019, December 16). *CNN digital breaks records, sees biggest audience in history in 2019*. CNN Press Room. <https://cnnpressroom.blogs.cnn.com/2019/12/16/cnn-digital-breaks-records-sees-biggest-audience-in-history-in-2019/>
- Cacciatore, M. A., Scheufele, D. A. & Iyengar, S. (2016). The end of framing as we know it ... and the future of media effects. *Mass Communication and Society*, 19(1), pp. 7-23. <https://10.1080/15205436.2015.1068811>
- Carvalho, A. (2007). Ideological cultures and media discourses on scientific knowledge: Re-reading news on climate change. *Public Understanding of Science*, 16(2), 223-243. <https://10.1177/0963662506066775>
- Center on Global Energy Policy. (n.d.). *Dan Brouillette*. Center on Global Energy Policy at Columbia University SIPA. <https://energypolicy.columbia.edu/dan-brouillette>
- Chadwick, A. (2017). *The hybrid media system: Politics and power* (2nd ed.). Oxford University Press.
- Chinn, S., Hart, P. S., & Soroka, S. (2020). Politicization and polarization in climate change news content, 1985-2017. *Science Communication*, 42(1), 112-129. <https://10.1177/1075547019900290>

- Cook, J., Oreskes, N., Doran, P. T., Anderegg, W. R. L., Verheggen, B., Maibach, E. W., Carlton, J. S., Lewandowsky, S., Skuce, A. G., Green, S. A., Nuccitelli, D., Jacobs, P., Richardson, M., Winkler, B., Painting, R., & Rice, K. (2016). Consensus on consensus: a synthesis of consensus estimates on human-caused global warming. *Environmental Research Letters*, 11(4), 48002. <https://10.1088/1748-9326/11/4/048002>
- D'Angelo, P., & Kuypers, J. A. (2010). Introduction: Doing news framing analysis. In P. D'Angelo & J. A. Kuypers (Eds.), *Doing news framing analysis: Empirical and theoretical perspectives*, (pp. 1-13). Routledge.
- Deacon, D., Pickering, M., Golding, P., & Murdock, G. (2010). *Researching communications: Practical guide to methods in media and cultural analysis* (2nd edition). Bloomsbury Academic.
- Denzin, N. K., & Lincoln, Y. S. (2008). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research Vol 3: The Landscape of Qualitative Research* (pp. 1–43). Sage.
- Doyle, J., Farrell, N., & Goodman, M. K. (2017). Celebrities and climate change. *Oxford Research Encyclopedia of Climate Science*.
- Dunlap, R. E., McCright, A. M. & Yarosh, J. H. (2016). The political divide on climate change: Partisan polarization widens in the U.S. *Environment: Science and Policy for Sustainable Development*, 58(5), pp. 4-23. <https://10.1080/00139157.2016.1208995>
- Eckersley, R. (2016). Responsibility for climate change as a structural injustice. In T. Gabrielson, C. Hall, J. M. Meyer, & D. Schlosberg (Eds.), *The Oxford Handbook of Environmental Political Theory*. Oxford University Press.

- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51-58. <https://10.1111/j.1460-2466.1993.tb01304.x>
- Friedrich, J., Ge, M., & Pickens, A. (2017, April 11). *This interactive chart explains world's top 10 emitters, and how they've changed*. World Resources Institute. <https://www.wri.org/blog/2017/04/interactive-chart-explains-worlds-top-10-emitters-and-how-theyve-changed>
- Friedrich, J., Ge, M., & Tankou, A. (2017, August 10). *6 charts to understand U.S. state greenhouse gas emissions*. World Resources Institute. <https://www.wri.org/blog/2017/08/6-charts-understand-us-state-greenhouse-gas-emissions>
- Geological Society of America. (2015, April). *GSA position Statement: Climate change*. https://www.geosociety.org/documents/gsa/positions/pos10_climate.pdf
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Harvard University Press.
- Graue, E., & Karabon, A. (2012). Standing at the corner of epistemology ave, theoretical trail, methodology blvd, and methods street. In A. A. Trainor & E. Graue (Eds.), *Reviewing qualitative research in the social sciences: A guide for researchers and reviewers* (pp. 11-20). Taylor & Francis Group.
- Hallegatte, S., Bangalore, M., Bonzanigo, L., Fay, M., Kane, T., Narloch, U., Rozenberg, J., Treguer, D., & Vogt-Schilb, A. (2016). *Shock waves: Managing the impacts of climate change on poverty*. Climate Change and Development Series. World Bank. <https://10.1596/978-1-4648-0673-5>.

- Hart, P. S. (2011). One or many? The influence of episodic and thematic climate change frames on policy preferences and individual behavior change. *Science Communication*, 33(1), 28-51.
<https://10.1177/1075547010366400>
- Hart, P. S., & Feldman, L. (2014). Threat without efficacy? Climate change on U.S. network news. *Science Communication*, 36(3), 325-351. <https://10.1177/1075547013520239>
- H. Res. 109, 116th Cong. (2019).
- Intergovernmental Panel on Climate Change. (2013). *Climate change 2013: The physical science basis. Contribution of working group I to the fifth assessment report of the Intergovernmental Panel on Climate Change*.
- Intergovernmental Panel on Climate Change. (2018). *Global warming of 1.5°C. An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*.
- Islam, S. N., & Winkel, J. (2017). *Climate change and social inequality*. [Working Paper]. United Nations Department of Economic and Social Affairs.
- Iyengar, S. (1991). *Is anyone responsible?: How television frames political issues*. The University of Chicago Press.
- Kahneman, D. & Tversky, A. (1981). The framing of decisions and the psychology of choice. *Science*, 211(4481), pp. 453-458. <https://10.1126/science.7455683>
- Konisky, D. M., & Woods, N. D. (2018). Environmental federalism and the Trump presidency: A preliminary assessment. *Publius: The Journal of Federalism*, 48(3), 345-371.
<https://10.1093/publius/pjy009>

- Lahikainen, L. (2018). *Individual responsibility for climate change: A social structural account*. [Doctoral dissertation, Tampere University]. Tampere University Press.
- Larrère, C. (2018). Responsibility in a global context: climate change, complexity, and the “social connection model of responsibility”. *Journal of Social Philosophy*, 49(3), 426-438.
<https://10.1111/josp.12255>
- Leiserowitz, A., Maibach, E., Rosenthal, S., Kotcher, J., Ballew, M., Goldberg, M., Gustafson, A., & Bergquist, P. (2019). *Politics & global warming, April 2019*. Yale Program on Climate Change Communication.
- Martinsen, F. & Seibt, J. (2013). Climate change and the concept of shared ecological responsibility. *Environmental Ethics*, 35(2), pp. 163-187.
<https://10.5840/enviroethics201335216>
- McCoy, C., & Just, R. (2019). *Clean power plan / carbon pollution emission guidelines*. Harvard Law School.
- McCright, A. M., & Dunlap, R. E. (2003). Defeating Kyoto: The conservative movement's impact on U.S. climate change policy. *Social Problems*, 50(3), 348- 373.
- McCright, A. M., & Dunlap, R. E. (2011a). Cool dudes: The denial of climate change among conservative white males in the United States. *Global Environmental Change*, 21(4), 1163-1172. <https://10.1016/j.gloenvcha.2011.06.003>
- McCright, A. M. & Dunlap, R. E. (2011b). The politicization of climate change and polarization in the American public's views of global warming, 2001-2010. *The Sociological Quarterly*, 52(2), 155-194. <https://10.1111/j.1533-8525.2011.01198.x>

- National Aeronautics and Space Administration. (2017, January 18). *NASA, NOAA data show 2016 warmest year on record globally*. <https://www.nasa.gov/press-release/nasa-noaa-data-show-2016-warmest-year-on-record-globally>
- National Aeronautics and Space Administration. (2020, January 15). *NASA, NOAA analyses reveal 2019 second warmest year on record*. <https://climate.nasa.gov/news/2945/nasa-noaa-analyses-reveal-2019-second-warmest-year-on-record/>
- National Oceanic and Atmospheric Administration. (2019, July 18). *June 2019 was hottest on record for the globe*. <https://www.noaa.gov/news/june-2019-was-hottest-on-record-for-globe>
- Nelkin, D. (1995.) *Selling science. How the press covers science and technology*. W H Freeman.
- Nisbet, M. C. (2009). Communicating climate change: Why frames matter for public engagement. *Environment: Science and Policy for Sustainable Development*, 51(2), 12-23. <https://10.3200/ENVT.51.2.12-23>
- Nisbet, M. C. (2010). Knowledge into action: Framing the debates over climate change and poverty. In P. D'Angelo & J. A. Kuypers (Eds), *Doing news framing analysis: Empirical and theoretical perspectives* (pp. 43-83). Routledge.
- Obama, B. (2016, October 5). *Remarks by the president on the Paris Agreement* [Press statement]. White House. <https://obamawhitehouse.archives.gov/the-press-office/2016/10/05/remarks-president-paris-agreement>
- O'Mahony, P. (2015). Climate change: Responsibility, democracy and communication. *European Journal of Social Theory*, 18(3), 308-326. <https://10.1177/1368431015579968>
- Overland, I., & Sovacool, B. K. (2020). The misallocation of climate research funding. *Energy Research & Social Science*, 62(101349), 1-13. <https://10.1016/j.erss.2019.101349>

- Pew Research Center. (2020, February 13). *As economic concerns recede, environmental protection rises on the public's policy agenda*. <https://www.people-press.org/2020/02/13/as-economic-concerns-recede-environmental-protection-rises-on-the-publics-policy-agenda/>
- Pompeo, M. (2019, November 4). *On the U.S. withdrawal from the Paris Agreement* [Press statement]. U.S. Department of State. <https://www.state.gov/on-the-u-s-withdrawal-from-the-paris-agreement/>
- Ray, M. (2020, April 2). *Fox News Channel: American company*. Encyclopædia Britannica. <https://www.britannica.com/topic/Fox-News-Channel>
- Ritchie, H., & Roser, M. (2019, December). *CO₂ and greenhouse gas emissions*. Our World in Data. <https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions>
- Selby, J. (2019). The Trump presidency, climate change, and the prospect of a disorderly energy transition. *Review of International Studies*, 45(3), 471-490. <https://10.1017/S0260210518000165>
- Selin, H., & VanDeever, S. (2011). US climate change politics and policymaking. *Wiley Interdisciplinary Reviews: Climate Change*, 2(1), 121-127. <https://10.1002/wcc.94>
- Shearer, E. (2018, December 10). *Social media outpaces print newspapers in the U.S. as a news source*. <https://www.pewresearch.org/fact-tank/2018/12/10/social-media-outpaces-print-newspapers-in-the-u-s-as-a-news-source/>
- Smiley, M. (2017, March 27). *Collective responsibility*. Stanford Encyclopedia of Philosophy. <https://plato.stanford.edu/entries/collective-responsibility/>

- Statista. (2018, May). *Leading news websites in the U.S. 2018, by unique monthly visitors*.
<https://www.statista.com/statistics/381569/leading-news-and-media-sites-usa-by-share-of-visits/>
- Stone, C. D. (2004). Common but differentiated responsibilities in international law. *American Journal of International Law*, 98(2), 276-301. <https://10.2307/3176729>
- Tracy, M. (2019, August 7). *New York Times up to 4.7 million subscribers as profits dip*. New York Times. <https://www.nytimes.com/2019/08/07/business/media/new-york-times-earnings.html>
- Trumbo, C. (1996). Constructing climate change: Claims and frames in US news coverage of an environmental issue. *Public Understanding of Science*, 5(3), 269-283. <https://10.1088/0963-6625/5/3/006>
- United Nations. (2019, May 31). *Climate Justice*.
<https://www.un.org/sustainabledevelopment/blog/2019/05/climate-justice/>
- United Nations Environment Programme (n.d.). *Mitigation*.
<https://www.unenvironment.org/explore-topics/climate-change/what-we-do/mitigation>
- United Nations Environment Programme (2019). *Emissions Gap Report 2019*.
- United Nations Framework Convention on Climate Change. (n.d.) *What is the United Nations Framework Convention on Climate Change?* <https://unfccc.int/process-and-meetings/the-convention/what-is-the-united-nations-framework-convention-on-climate-change>
- United Nations Framework Convention on Climate Change. (1992). *United Nations Framework Convention on Climate Change*.
- United Nations Framework Convention on Climate Change. (1997). *Kyoto Protocol*.
- United Nations Framework Convention on Climate Change. (2015). *Paris Agreement*.

- United States Energy Information Administration. (2019, November). *U.S. energy-related carbon dioxide emissions, 2018*. U.S. Department of Energy.
- United States Energy Information Administration. (2020, March 2). *U.S. crude oil production grew 11% in 2019, surpassing 12 million barrels per day*.
<https://www.eia.gov/todayinenergy/detail.php?id=43015>
- Van Gorp, B. (2010). Strategies to take subjectivity out of framing analysis. In P. D'Angelo & J. A. Kuypers (Eds.), *Doing news framing analysis: Empirical and theoretical perspectives* (pp. 84-109). Routledge.
- Vehovar, V., Toepoel, V., & Steinmetz, S. (2016). Non-probability sampling. In C. Wolf, D. Joye, T.W. Smith & Y. Fu (Eds.), *The SAGE handbook of survey methodology* (pp. 329-345). SAGE Publications Ltd.
- de Vreese, C. H. (2004). The effects of frames in political television news on issue interpretation and frame salience. *Journalism & Mass Communication Quarterly*, 81(1), 36-52.
<https://10.1177/107769900408100104>
- White House. (2019, October 23). *President Donald J. Trump is ending the war on American energy and delivering a new era of energy dominance*. <https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-ending-war-american-energy-delivering-new-era-energy-dominance/>
- Wilson, K. M. (1995). Mass media as sources of global warming knowledge. *Mass Comm Review*, 22(1-2).
- World Meteorological Organization. (2019, November 25). *WMO Greenhouse gas bulletin No. 15: The state of greenhouse gases in the atmosphere based on global observations through 2018*.
- Young, I. M. (2011). *Responsibility for justice*. Oxford University Press.

Zalasiewicz, J., Williams, M., Steffen, W., & Crutzen, P. (2010). The new world of the Anthropocene. *Environmental Science & Technology*, 44(7), 2228-2231.
<https://10.1021/es903118j>

Zehr, S. (2009). An environmentalist/economic hybrid frame in US press coverage of climate change, 2000-2008. In T. Boyce & J. Lewis (Eds.), *Climate change and the media* (pp. 80-91). Peter Lang.